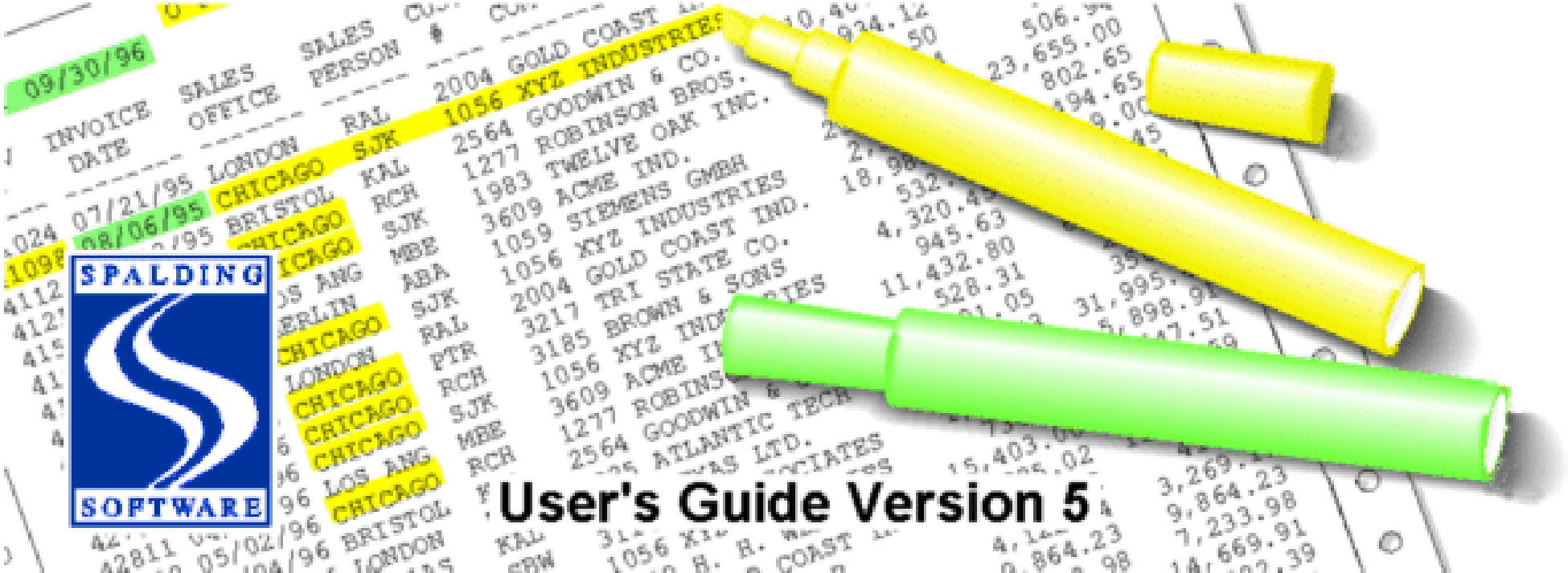
DataImport®

File Translation Utility

For Windows®



SPALDING SOFTWARE

User's Guide Version 5

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Chapter 1: Installation

This chapter describes how to install DataImport for Windows on a single computer or on a network and how to get technical support. This chapter also lists the new features in this version and provides information about upgrading from previous versions.

Installing DataImport

DataImport requires an IBM or compatible PC running Windows 3.1, 95, NT, or IBM OS/2 Warp with a minimum of 4MB RAM available and 4MB of hard disk space. Both single user and multi-user versions of DataImport can be run from a network (LAN) server.

We suggest that you read either the **Single User Installation** or **LAN Installation** sections and follow the outlined procedure to load DataImport.

Single User Installation

To use DataImport, you must first install the program on your hard drive using the supplied installation program called SETUP. This program walks you through the installation procedure by asking you where you want to install the program files, copying the program files to your hard drive and creating a new program group.

The steps below outline the procedures for using the Setup utility that is provided with the DataImport installation disks. Follow the procedures below to install DataImport on a single computer.

NOTE No other programs other than Program Manager and File Manager should be running during installation. Exit all other applications before installing DataImport.

Procedure:

1. Switch to the Windows Program Manager.
2. Insert DataImport Disk 1 into the disk drive.
3. From the **File** menu, choose **Run...**
4. The Run dialog box appears. If the installation disk is in drive A, type A:\SETUP. If it is in drive B, type B:\SETUP.

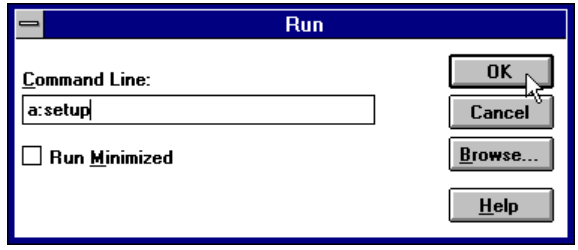


Figure 1-1 *Running the Setup program for DataImport*

5. Press the OK button to run Setup.

The Setup program initializes and then the DataImport for Windows Setup screen appears. The first dialog box warns you that no other applications—other than Program Manager or File Manager—should be running.

6. Press OK to continue.

The DataImport for Windows Setup dialog box appears:

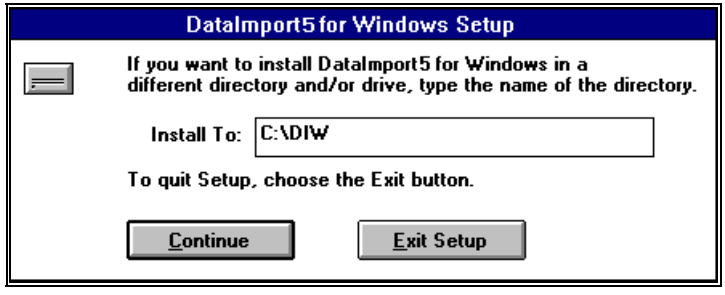

DataImport5 for Windows Setup
If you want to install DataImport5 for Windows in a different directory and/or drive, type the name of the directory.
Install To:
C:\DIW
To quit Setup, choose the Exit button.
Continue
Exit Setup

Figure 1-2 *Choosing the destination directory for DataImport*

7. To accept the default directory and install DataImport, press the Continue button. If you want to install DataImport to a different directory, type in the new directory and then press Continue.

The DataImport License Information dialog box appears:

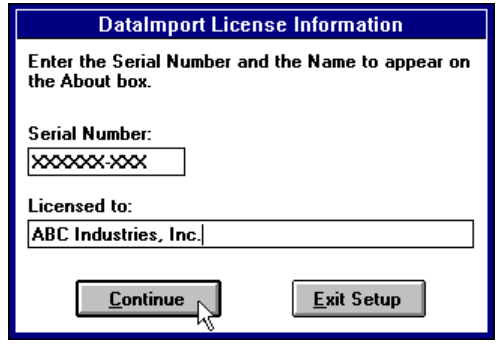


Figure 1-3 *Entering the serial number and user name*

The serial number for your product is located on the distribution disks, the registration card and on the disk envelope imprinted with the license agreement.

8. Type in the serial number in the Serial Number field.
9. Type the name of the licensed user in the Licensed to field and press Continue.

The installation begins and a dialog box indicates the progress of the Setup program.

10. If necessary, insert additional installation disks as prompted by the Setup program.

After copying files, the Setup program will build a DataImport program group and notify you upon completion.

NOTE The Setup program writes a log of the installation process called INSTALL.LOG to the directory where DataImport is located. This log lists what files were copied to your hard disk and where the files are located. Keep this file as a record in case you or your system administrator need to uninstall DataImport. Please read the next section if you are installing DataImport on a **network**

LAN Installation

Both the single user version and the multi-user version of DataImport can be run on a network. The multi-user version of DataImport will allow multiple users to share a single copy of the program files. The multi-user version uses standard NETBIOS calls for file and record locking.

Both versions of the software automatically keep track of the number of concurrent users, and will reject users if the maximum number of licensed users is exceeded. As soon as a user exits from the software, a slot is made available for another user. Installation on a network is similar to installation on a stand alone PC. Use the Setup program located on the first diskette to install the software to the server.

If the setup program detects that you are installing the program onto a remote network drive on a server, it will copy all the files from the installation diskettes onto the server. Some of the files will remain compressed as they are on the installation diskettes. The setup program will not copy any .DLL or .VBX files onto this workstation during the install, nor will it create a Program Group.

To install DataImport on a workstation run the Setup program on the server. This will install any necessary .VBX and .DLL files to the workstations and will create a Program Group pointing to the server's programs. A DataImport INI file will be created in the workstation's local Windows directory the first time the user runs the program.

Do not set the READ-ONLY attribute of the following files on the server: DIWNUMUS.EXE and DIWLOCK.EXE. Users must have Read and Write access to these files. If these files do not exist, they will be created

the next time the software is run. The other .EXE files can be protected by setting their READ ONLY attributes.

How the Number of Users are Controlled

When the user runs DataImport from a workstation, the application checks the number of users currently accessing the program. If the execution request does not exceed the maximum number of concurrent users, then the application will load as usual. If the request exceeds the maximum number of users, the following message appears:

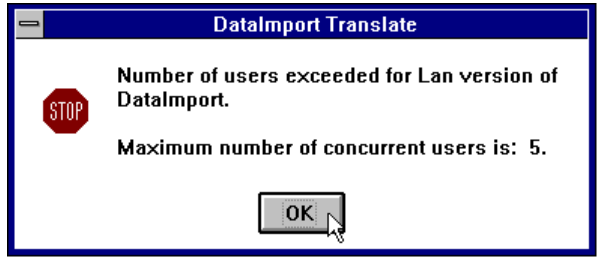

DataImport Translate
STOP
Number of users exceeded for Lan version of DataImport.
Maximum number of concurrent users is: 5.
OK

Figure 1-4 *LAN version error message when exceeding maximum users*

While accessing files on the network, Input Files can be shared by multiple users. However, Output Files are locked whenever a user is translating and Mask Files are locked whenever a user is saving the mask.

If the software is trying to access a file, and permission is denied due to the file being locked by another user, the software retries several times at different time intervals before informing the user that the file is locked. The user can at that time try to access the file again, or can wait and access the file later.

About this Version

The following sections tell you where to check for changes to the manual and/or software since this manual was written. They also supply information about new features and changes that users of previous versions should be aware of.

The README File

The DataImport diskettes may contain some new information not yet added to this manual. This information will be in a file named README.TXT. Please read this file to get the latest information about your version of DataImport. If this file does not exist, don't worry; it simply means that your manual is completely up to date.

To view README information, go to the Program Manager and in the DataImport program group, double click on the DataImport Readme icon. The text will be loaded into the Windows Notepad application. You can also view the file with any standard Windows word processor.

What's new in DataImport 5.0.

The following is a list of new features and improvements in DataImport 5.0.:

- **Task Commander** allows you to automate a series of Utilities and Translate functions.
- **New Column/Tag Types**:

  Name Parse (Last, First) and **Name Parse (First Last)** Formats data into Prefix, First Name, Middle Name, Last Name, and Suffix.

  Address Parse formats data into City, State and Zip/Postal Code.

  There is a dictionary file, DEFAULT.DIC that contains the definitions for the names and addresses. The dictionary can be set in the **Options Global** dialog box. You can customize and create your own dictionaries.

  Text Block keeps adding data from multiple lines within a column into the same cell (or field) during translation until the next line is to be output or a blank cell in the column is encountered, or you can configure how many lines should be in the block.

  Text (Left Justified) removes spaces from beginning of the text
- **Long File Names** support under Windows 95 and Windows NT
- **New Reference Point types**:

  Top of Form (1st line and each line after a Form Feed character)

  Form Length (1st line and each "x" number lines after that)
- **100 Reference points** can now be defined, up from 5.
- Line tags that are associated with Reference points that don't necessarily occur in every data set can now be cleared. For example, this is useful when working with a second optional address line which is not always present, as shown below:

  NAME: Arthur Garfunkel School of Drama
  ADDR1: 1971 Hazbin Ave.
  ADDR2: Suite 150 *(this line not always present, set flag*)
  CITY: Bridgewater STATE: CT ZIP: 14092
- Translation into **HTML** version 2.0 tables, with an .HTM file extension.
- **Push/pull feature** moves over all existing column definitions to the left or right a specified number of positions.
- User-specified default number of **lines of your input file to load** into your mask screen.

- Allow editing of previously defined Include/Exclude Reference Point match strings.
- **Column names can be output as headings** when translating into spreadsheets and CSV files.
- The Output Width of Tags & Columns can be specified independently of the column width on the mask screen.
- Line Tags can change order with Columns
- **Print the Input File** from the Mask Window.
- **Button Bar** with Tool Tips.
- **Description and Author fields** saved in Mask files.

Upgrading to DataImport 5.0.

Users of previous versions of DataImport should be aware of the following changes:

- The up and down highlighter has been eliminated. The highlighter is now used for only making horizontal selections. Use the line control bar to specify line treatments.
- Undo has been changed to Edit.
- Find has been changed to Search on the main menu.
- Unstack has been moved up to the main menu structure.
- Value lines are now called Output lines.
- Masks from 4.0 and previous versions will work in 5.0. However, once you have saved the old mask in version 5.0, it may become unusable in DataImport 4.0.

Technical Support

If you have problems with installation and use of the program, please call the support phone number on page 2 of this manual. Before calling for support:

- Print your mask settings. Review this page to see the selections you have made. Often times you will discover the problem. If not, have this in hand when you call.
- Try to duplicate the problem, step by step, to see exactly what happened and when the problem occurred.
- Know your Operating System version.
- Know your DataImport Version (This can be found in the Help About dialog box).
- Be at your computer when you call. Have your manual and your DataImport serial number handy.

Chapter 2: Introduction

This chapter introduces you to the many benefits of using DataImport and briefly describes the program's primary features. It also supplies answers to commonly asked questions about DataImport and its capabilities.

DataImport for Windows

Now that you have DataImport for Windows loaded on your machine or network, you may be asking yourself, "What am I supposed to do with this?" The following section will answer this question and introduce you to the benefits of automated data translation.

Why DataImport?

Because you have data downloaded from your mainframe or in a PC program that you cannot access in your spreadsheet, database, or other PC application.

The data files used by PC software products such as spreadsheets and databases have special file formats that are unique to each product. The files are encoded in a way that saves disk space and contains not only data, but descriptions concerning the arrangement and use of the data.

Some PC software products provide importing capabilities for data files that are not in their special format. However, these capabilities are often so limited that they are not of practical use, especially in cases where your file is not specifically intended for use in a spreadsheet or database.

Before DataImport, the only sure way to get data into these products was to manually key-in the data, or write a specialized importing program.

What Does DataImport Do?

DataImport converts plain text reports into spreadsheet and database files, as well as many other PC file formats. The reports might have come from an application on the PC or from a mainframe computer. They were designed to be printed on paper, but you can print them to a disk file on the PC instead. With DataImport you can convert these reports into useful file formats such as Excel, Lotus 1-2-3, Paradox, Access, HTML Tables, or dBase files.

DataImport has many uses. Perhaps the computer at your company's home office periodically sends you a comprehensive sales report, but you

need just the data for your city or region. DataImport can extract the data you want, and put it into a database or a spreadsheet.

If your accounting software does not produce graphs, DataImport can take a report from your software and let you import it into Excel. You can then manipulate the data into the form you want and graph the results.

If a number of locations send you a report each week, and you need to produce a summary report, DataImport can extract totals from each report and append them to the spreadsheet you are creating. Since you may have to do this every week, DataImport will remember the report format, so that you can extract the needed data from each subsequent report with a single command.

Other uses of DataImport include:

- Converting a mainframe report, downloaded as a print image file, to a PC spreadsheet such as Lotus 1-2-3, Quattro, or Excel (including "@" formulas for subtotals).
- Extracting data from a World Wide Web site and appending it to an existing dBase, Paradox or Access file.
- Extracting numbers from a word processing document for insertion in a report.
- Transferring only selected information from a mainframe or PC database into a PC spreadsheet.
- Creating an HTML page of your company's products from a report printed to disk.
- Parsing names and addresses in a mailing list into separate columns in a spreadsheet or database.

The above examples show the advantages of using DataImport: It eliminates the need to re-key important data, avoiding the high error rates associated with manual keying. It saves you the repetitive work of finding certain lines in a large report and from the tedious reformatting of data. It is also ideal when you need to summarize or extract data from complex reports currently on your mainframe or PC.

DataImport enables you to get the data you need into your application without waiting for someone else to write a special program or report for you. Many MIS/DP departments are backed up with years worth of requests for new reports. With DataImport, you can import existing reports into applications like 1-2-3, dBase, or Excel and start using your data immediately.

What Kinds of Files Can Be Translated?

With DataImport, you can translate data from any ASCII file. An ASCII file is a plain text file or printer output file. Most DOS applications will produce text output by a process called "print to disk". This simply means sending a report to a disk file instead of printing it. Windows applications

usually have an ASCII text output option or can print a report to a text file with the Generic / Text Only printer driver.

The following table gives a listing of the formats that DataImport can read and write. Be sure to check the README file for last minute additions.

DataImport Translation Formats

From any of these . . .	*To any of these . . .*
Any ASCII Text file: (TXT, ASC...)	ASCII (ASC)
Mainframe text reports	Clarion (DAT)
Minicomputer text reports	Columnwise DIF (DIF)
DOS Print to Disk file	Comma Separated Variable (CSV)
Generic / Text Only file (Windows)	dBase II, III, IV (DBF)
Word Processor Text Only file	Excel 2.1, 3.0, 4.0, 5.0, 7.0 (XLS)
Text only accounting reports	Fixed length file (FXD)
E-mail reports	HTML Tables (HTM)
Online communications text capture	Lotus 1-2-3 1A, 2.0, 3.0, 4.0, 5.0 (WK*)
Print to File (PRN)	Mailing Label (LBL)
Tab Separated Variables	Microsoft Access 1.1, 2.0 (MDB)
Comma Separated Variables†	Microsoft Word Merge File (WRD)
Character Separated Variables†	Paradox 3.5, 4.0 (DB)
Fixed length record†	Print Image (PRN)
dBase†	Quattro (WKQ)
EBCDIC†	Quattro Pro (WQ1)
Standard Data Format (SDF)	Quattro Pro 5.0 for Windows (WB1)
	Standard Data Format (SDF)
	Sylk (SLK)
	Symphony 1.0, 1.1 (WRK, WR1)
	Tab Separated Variable (TSV)
	User-Defined Delimited (UDD)
	WordPerfect Merge File (W5*)

Figure 2-1 *Input and Output capabilities of DataImport for Windows*
†These formats are supported through DataImport Utilities conversions.

Any Windows application and most DOS, minicomputer and mainframe applications have output options that convert your data into a human-readable text form, from which you can easily extract data using DataImport.

To obtain data from a mainframe computer, you can use communications software, such as terminal emulators and file transfer packages, or mainframe virtual disk utilities to capture text reports to PC files. Since

DataImport does not change any information on the mainframe, your MIS/DP department need not be concerned about data integrity.

If a file contains special control characters such as those used for printer control (escape codes), DataImport can remove these characters automatically during translation.

In addition to using ASCII plain text files, DataImport features a set of integrated utilities for converting several other popular types of files into a plain text file that can be translated by DataImport, including dBase files, Fixed Length Record, EBCDIC and Comma Separated Value files. DataImport can translate information from virtually any ASCII file of any size.

How Does DataImport Work?

DataImport's visual interface displays your original file in a window. You simply point at the rows and columns you want to import and mark the rows or columns using "point-and-pick" operations like those in Excel and other programs. You select the portions of a file you want to translate. No special knowledge of file structures or command languages is needed to use DataImport.

DataImport "translates" the original data you select into the file formats required by your target application software, such as WKS, HTM, WR1, WK3, WKQ, XLS, or DBF. Your selections and instructions for translating the data in a report are saved in a "mask" file that can be reused later. Using "masks" saves you time, particularly if you need to prepare the same, or similar, reports on a regular basis. You can even automate translations by using DataImport's Task Commander or incorporating them into a batch file.

DataImport does more than simply extract data from one file and put it into another. It distinguishes between numeric and non-numeric information, and handles both appropriately. When DataImport creates a spreadsheet file, it automatically sets up the numbers to include commas, currency symbols, and percent signs. It handles names, numbers, dates, and times.

Exploring DataImport

This section provides a quick introduction to DataImport, including the DataImport program group and the DataImport Mask application window.

DataImport Program Group

The DataImport Setup program creates this program group in the Microsoft Windows Program Manager.

Mask This application encompasses the main features of DataImport. This program is where you create masks and translate files.

Translate This application lets you directly access the translation engine of DataImport. Once you have defined a mask, you can quickly re-use masks with this application.

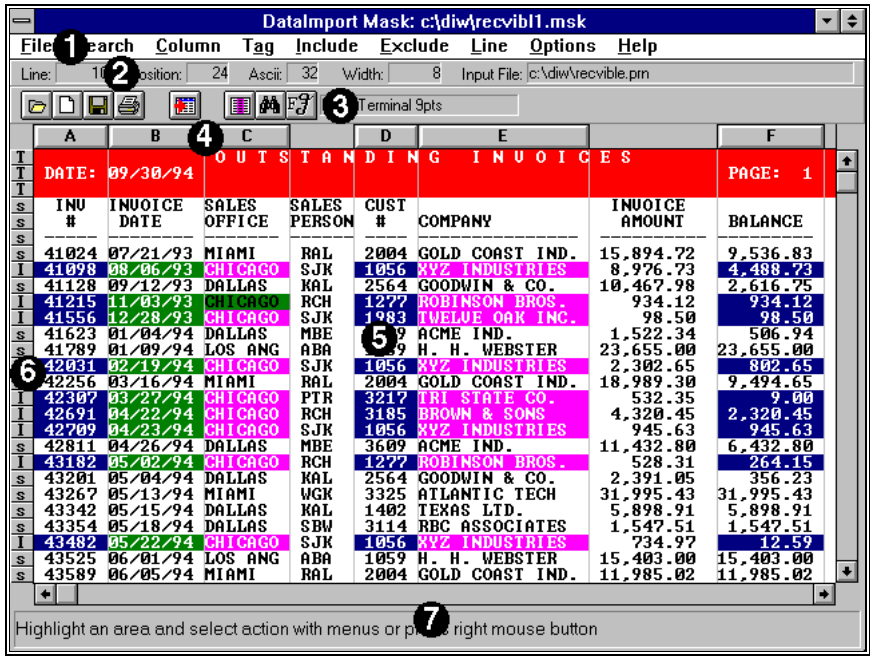
Utilities This application provides special use utilities for reformatting and reorganizing Input Files.

Task Commander This application automates the DataImport translate and utilities processes, allowing you to write scripts for repetitive multi-step translation jobs.

DataImport Readme This file provides the latest release information about your version of DataImport. It may contain corrections to this documentation or information not otherwise included in the manual: READ THIS FILE.

Load any of these programs or the README file by moving the cursor over an icon and double clicking the left mouse button.

DataImport Mask Window



1. **Menu Bar** This section of the Mask window provides access to menu commands, just like other Windows applications.

2. **Information Bar** This section of the window shows the current line and character position of the cursor, the ASCII code of the selected character, the width of the current selection and the name of the Input File.

3. **Button Bar** This section contains buttons for several of the more frequently used actions, including Save Mask, Translate, and Column Define.

4. **Column Control Bar** This section controls the definition of columns. Drag the cursor across the Control Bar to create a column. Press a column button to change its settings. Drag the left or right edge of a column button to change its size.

5. **Input File window** This section is a scrolling text window that displays the current Input File and any mask definitions.

6. **Line Control Bar** This gray section controls the treatment of lines. Click or drag the cursor over the buttons of the Line Control Bar to change their definition.

7. **Prompt Line** This bar prompts you with information on how to use DataImport.

The next chapter gives a quick example of how you use DataImport to get you up and running quickly.

Chapter 3: Tutorial

This chapter covers the basics of using DataImport to get you up and running as quickly and productively as possible. The chapter shows you how to load a file, choose the data you want to extract, select an output format and run a translation to extract your data.

The first step in using DataImport to translate a file is to define a "mask" for your data file that tells DataImport what information you want to extract and how you want it extracted. The masking process takes place while your data file or report (Input File) is displayed in a window.

As you select the data from your report, DataImport confirms your selections by displaying the selected portions in different colors. The colors of the masked data indicate how it will be extracted. For example, data with a blue background will be translated as numbers, data with a magenta background will be translated as text (character data) and data with a green background will be translated as dates.

After the Mask is defined, it can be immediately used to perform a translation and extract your data to a spreadsheet or database file. The mask can also be saved for repeated translations of a similar report.

Running DataImport

To begin the mask definition process, you must first run the DataImport Mask application. From the DataImport 5.0 program group, double click on the **Mask icon** as shown below.

The Mask window is initially displayed with no Input File or mask displayed.

Loading a File To Be Translated

The INVEST.PRN file is located in the directory containing the DataImport programs, usually C:\DIW\.

Generally, the first step to defining a mask is to load a report, or Input File, into the Mask window. Let's start by loading a sample report named INVEST.PRN as our Input File:

Procedure:

1. From the **File** menu, choose **Load Input...** The following dialog box will appear:

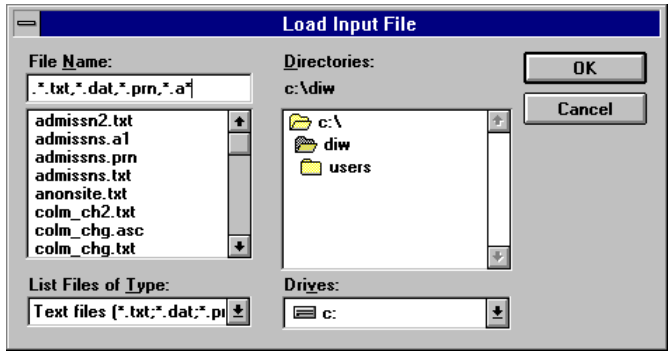


Figure 3-1 *Load Input File dialog box*

2. From the File Name list box, choose the INVEST.PRN file by moving the cursor over the filename and pressing the left mouse button.
3. Press OK to load the file.

The Input File is loaded into the Mask window. A dialog box will appear like the one shown below:

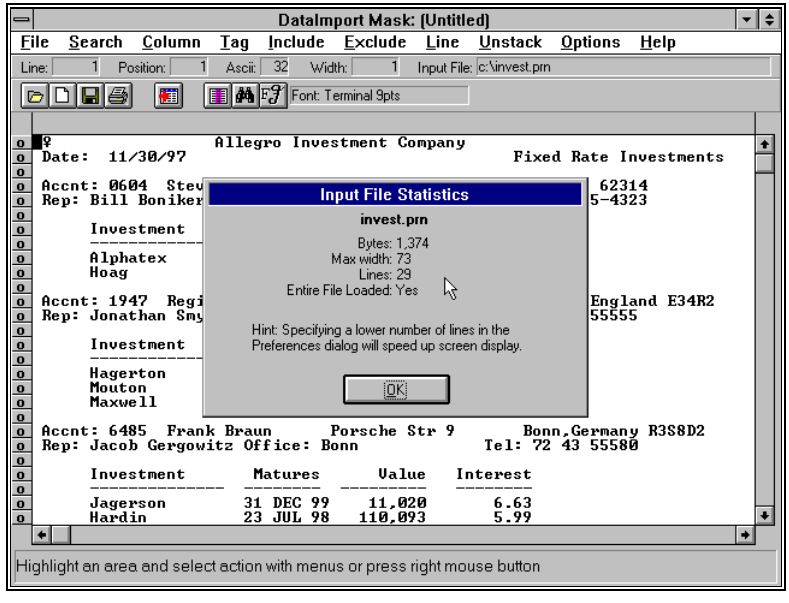

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 1 Position: 1 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
Allegro Investment Company
Date: 11/30/97
Fixed Rate Investments
Input File Statistics
invest.prn
Bytes: 1,374
Max width: 73
Lines: 29
Entire File Loaded: Yes
Hint: Specifying a lower number of lines in the Preferences dialog will speed up screen display.
OK
Investment
Alphatex
Hoag
Hagerton
Mouton
Maxwell
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-2 *Load Input File as initially displayed*

Now you are ready to define which data you want to extract. DataImport can load many different types of files, including computerized reports, saved e-mail messages, web page data, and many other kinds of text files.

Creating a Mask for Data Extraction

Our example Input File is an Investment Report. The report is organized by Customer with a listing of each customer's investments.

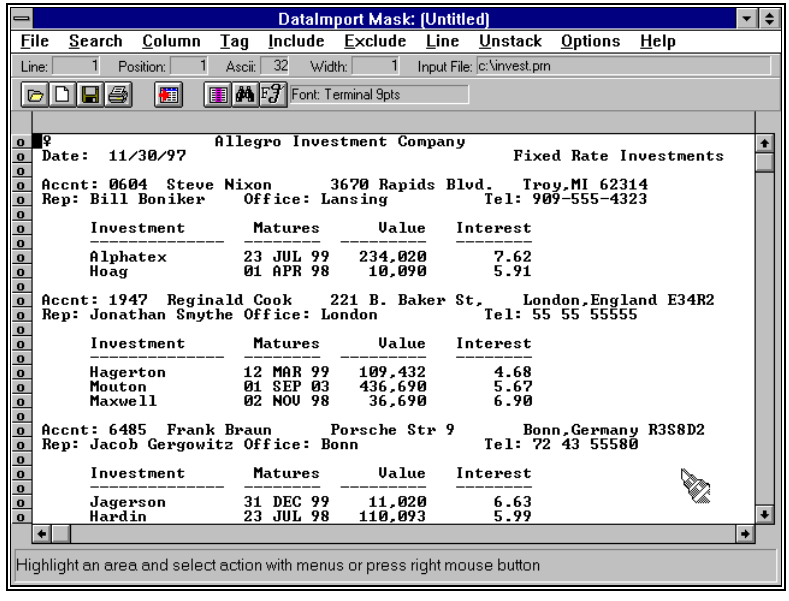

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 1 Position: 1 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-3 *Loaded Input File*

Let us assume that we want to put the investment data into a spreadsheet. In this spreadsheet, we would like each investment on a separate line. We also want the customer's name and phone number on the investment lines. Therefore, when we sort the investments by maturity date the customer contact information will be on the same line. The following sections will show you how to create a mask that will extract just the data you want quickly and accurately.

Choosing Data by Highlighting

The cursor changes to a highlighter when it is over the Input File window.

The primary type of tool used in the Mask window is a "highlighting marker" or highlighter. In DataImport, you use the highlighter to mark the data you want to extract.

Highlighting, or selecting, is done by moving the cursor (highlighter) to the beginning of an area where an action is to take place, holding down the left mouse button, dragging the highlighter to the end of where the action is to take place and releasing the mouse button.

Extracting Columns of Data

The primary way of extracting data with DataImport is to define columns over the data you want to extract. There are several methods you can use to create columns. By way of example, we will introduce each of these techniques in this section.

Defining Columns Using the Menu Bar

The first column of data we want to extract is the Investment Name.

Procedure:

1. Move the Highlighter over the first letter ‘A’ of the investment Alphatex.
2. Highlight the area on the line that contains the investment name. Press the left mouse button and drag the highlighter to the end of the area that can contain the investment names and release the button. Remember some names may be longer than Alphatex. Your screen should look like the one shown below:

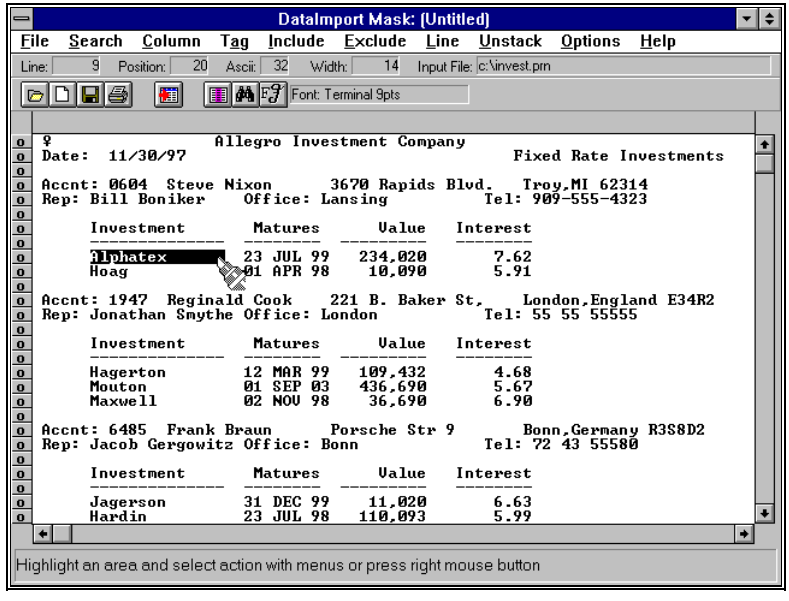

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 20 Ascii: 32 Width: 14 Input File: c:\invest.prn
Font: Terminal 9pts
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-4 *Defining a data column by highlighting the investment name*

3. From the **Column** menu, choose **Define**. The Input File is redisplayed with column A defined, and the Column Settings dialog box appears. Your screen should look like the one shown below:

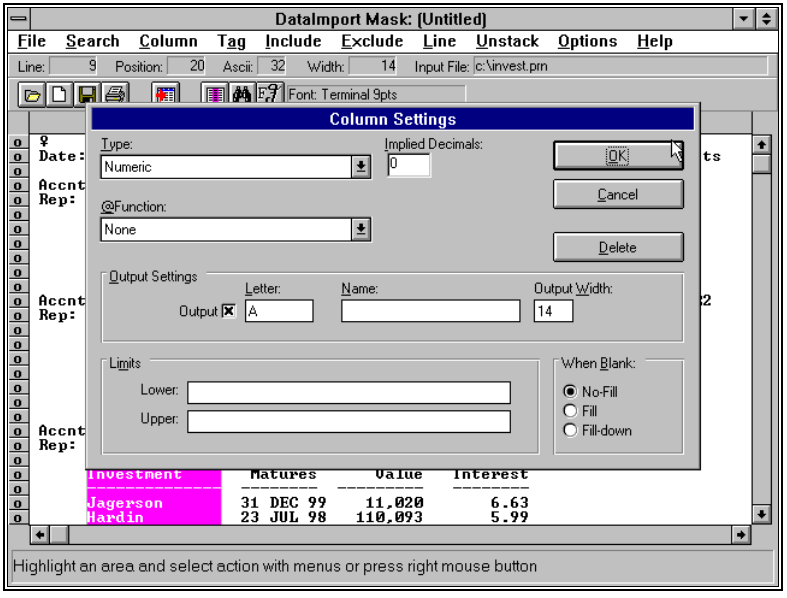


Figure 3-5 *Column Settings dialog box is displayed while defining column A*

4. This dialog box is used to define the settings of a column, such as its sequence and data type. Notice that the current setting for the column type is Numeric. However, since Alphatex is text, select the Text (Character/Label) option.
5. Press OK to accept the column settings.

Once you've defined the column, your screen should look like this:

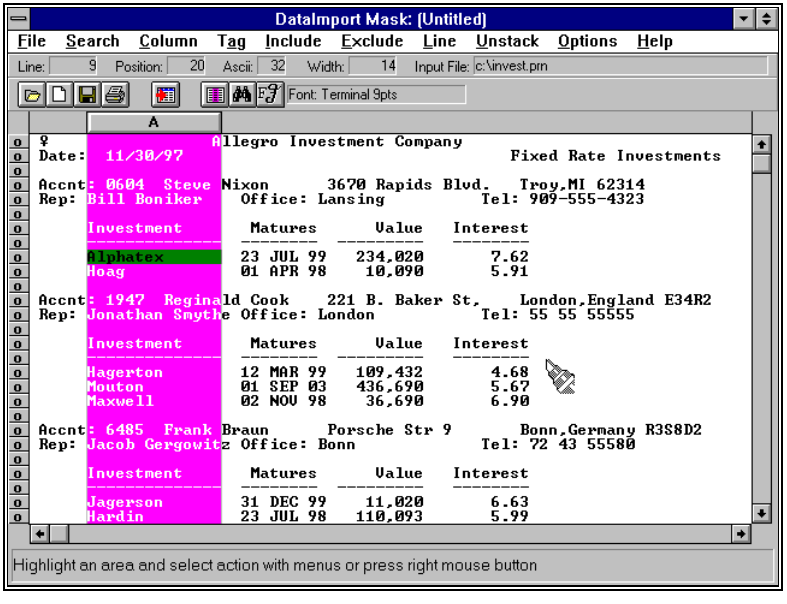

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 20 Ascii: 32 Width: 14 Input File: c:\invest.prn
Font: Terminal 9pts
A
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-6 *Mask window with column A defined*

DataImport displays the data within the defined column with a background color. This coloring allows you to easily see what data will be extracted. Do not worry for now that text on lines other than the detail lines are also highlighted.

Defining Columns Using the Popup Menu

The second column of data we want to extract is the date that the investment matures.

Procedure:

1. Highlight any maturity date such as “23 JUL 99” on the Alphatex investment line. Make sure your highlighting does not start in the first column you created.
2. Click the right mouse button. A popup menu will appear as shown below:

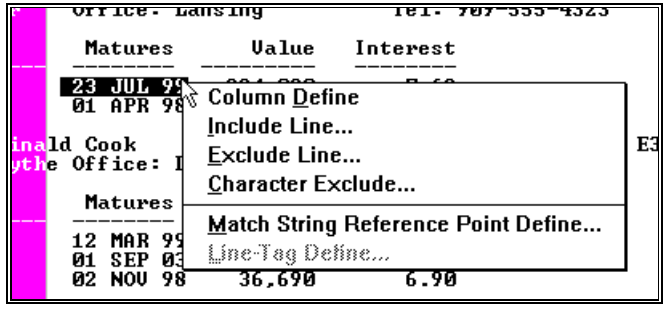


Figure 3-7 *Highlighter popup menu*

3. From the popup menu, choose **Column Define...** The Input File is redisplayed with column B defined and the Column Settings dialog box displayed.
4. For now, do not change any of the settings. Press OK to accept the current column settings.

Once you have defined the column, your screen should look like the one shown below:

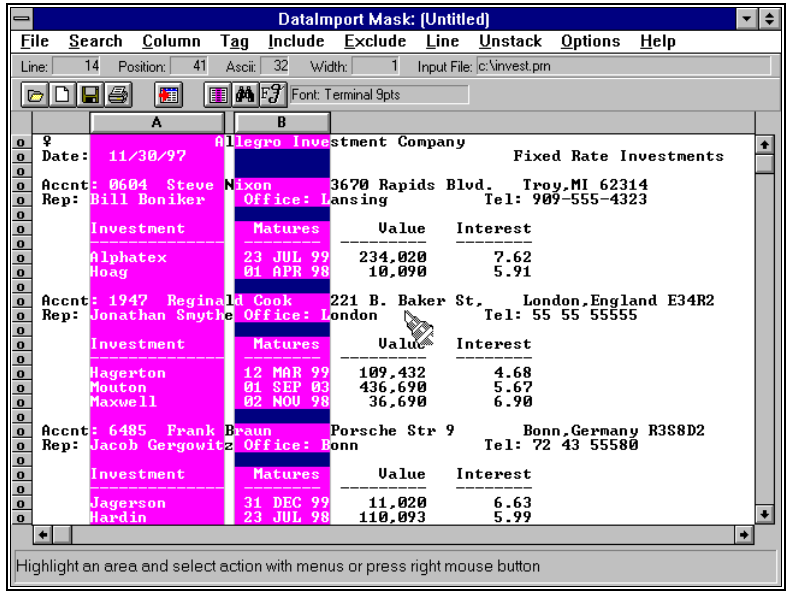

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 14 Position: 41 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A
B
Allegro Investment Company
Date: 11/30/97
Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-8 *Mask window with columns A and B defined*

Defining Columns Using the Column Control Bar

A quicker way to create a column is by using the Column Control Bar. This is the bar above the Input File window that shows the location of each column as a button labeled with the column letter.

The next column of data we want to extract is the Value column.

Procedure:

1. Move the cursor into the Column Control Bar. Note that the cursor changes from a highlighter to a double-headed arrow.
2. In the Column Control Bar, move the cursor to the beginning position of the Value data.
3. Press the left mouse button and drag the cursor to the right. Notice that a box is drawn on the Input File window to indicate the range of the new column as shown below:

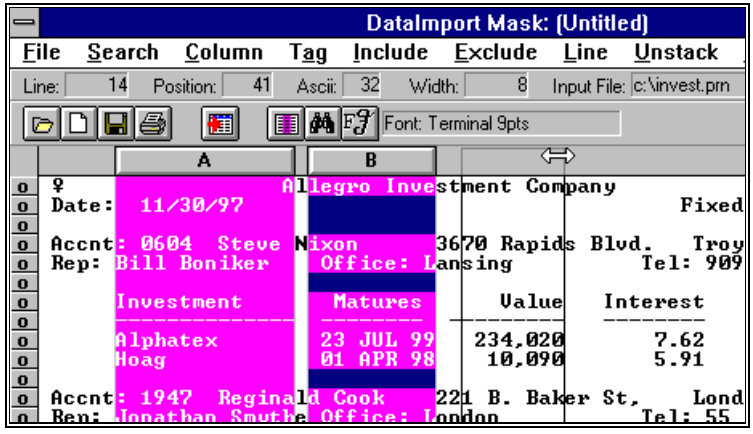

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack
Line: 14 Position: 41 Ascii: 32 Width: 8 Input File: c:\invest.prn
Font: Terminal 9pts
A B
Allegro Investment Company
Date: 11/30/97 Fixed
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy
Rep: Bill Boniker Office: Lansing Tel: 909
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, Lond
Rep: Jonathan Smythe Office: London Tel: 55

Figure 3-9 *Using the Column Control Bar to define a column*

The automatic display of the Column Settings dialog box can be suppressed by choosing the ***Options Preferences*** *command, and in the Preferences Settings dialog box, unmark the* ***Display dialog when defining a column*** *option.*

4. When the box is correctly positioned around the Value data, release the left mouse button. The Input File is redisplayed with column C defined and the Column Settings dialog box appears.
5. For now, press OK to accept the current column settings

Column C is now defined. Remember that only data with a background color other than white will be translated.

Now that you know how to define columns, use any of these methods to define a column for the interest rate. After creating all of these columns, your screen should look like this:

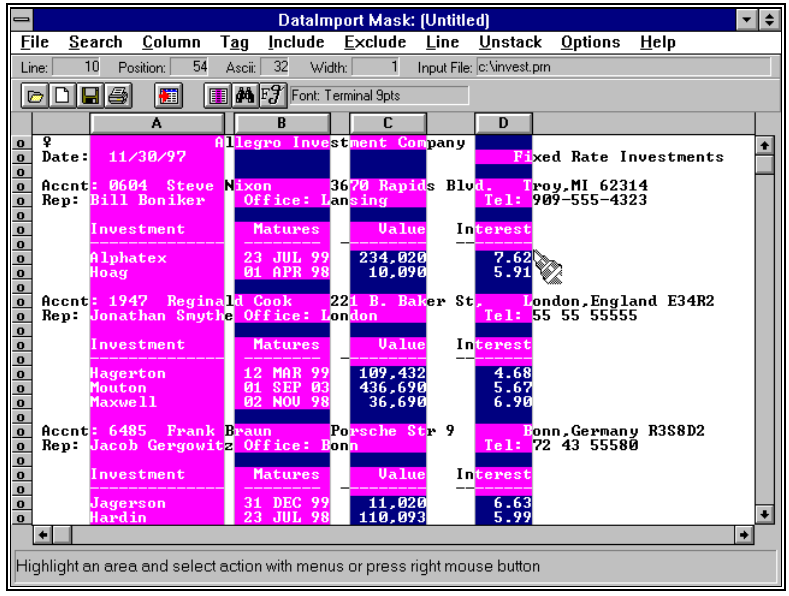

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 10 Position: 54 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-10 *Mask window with all investment detail columns defined*

Specifying the Type of Data in a Column

The colors of the masked data indicate how the data from the report will be translated: blue for numeric, magenta for text, and green for dates. These colors indicate what formatting will be applied to your data when it is extracted to a spreadsheet or database. Selecting the correct column type in DataImport will make your data cleaner and easier to handle in your target application.

The maturity dates in column B of this report are currently displayed with a magenta background. This coloring tells us the dates will be translated into a spreadsheet with a text format applied to them. Therefore, we would not be able to perform calculations in the spreadsheet with this data, such as calculating how long until the investment matures.

The data in column B should be translated as dates, so change column B's type to Date:

Procedure:

1. Press column button B in the Column Control Bar at the top of second column. The Column Settings dialog box is displayed:

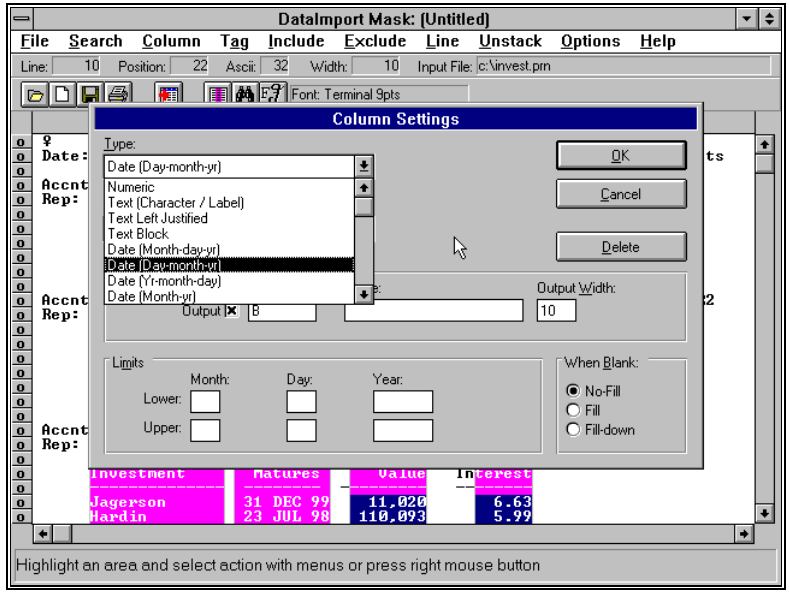


Figure 3-11 *Changing column B's type to a Date format*

2. Click the arrow to the right of the Type option to open its pull-down list box.
3. Choose **Date.** Note that DataImport handles several different date formats. Be sure to select the appropriate one **(day-month-year)**.
4. Press OK to accept the new column settings.

The data in column B that DataImport recognizes as dates is now displayed with a green background. The background color of data that cannot be recognized as dates is not changed.

Extracting Specific Lines of Data

*A lower case **o** in the line control bar indicates that the current default line treatment is "output". A line with an output treatment is translated to the Output File.*

At this point we have defined the columns of data on the investment detail line. We now need to tell DataImport to extract only lines on this report that are investment detail lines. Currently in our example report, every line on the report is selected for translation. There are two ways that we know this; there are background colors on each line within the defined columns, and a lowercase "**o**" on the Line Control Bar at the left of every line.

There are many ways to select which lines or rows in the Input File are translated by DataImport. Specific lines are selected for output by either including or excluding lines that meet "matching" criteria.

We only want to include the investment lines, so we will find a common character or string of characters that is unique to these lines. One such common character is the decimal point in the Interest column:

Procedure:

1. Highlight the decimal point in the interest rate at position 50 on any of the investment lines where it occurs.
2. From the **Include** menu, choose **Lines** and then **Define**... The Define Include Line dialog box appears.

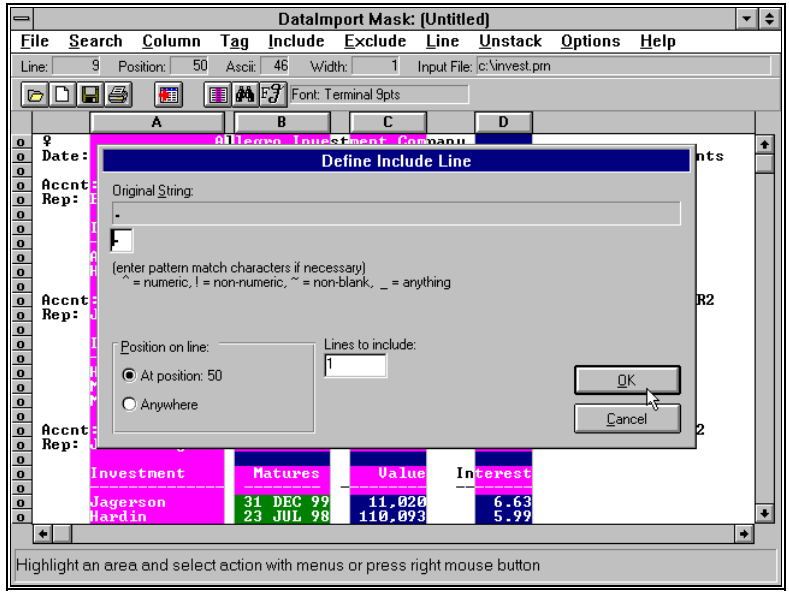

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 50 Ascii: 46 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
Define Include Line
Original String:
.
(enter pattern match characters if necessary)
^ = numeric, ! = non-numeric, ~ = non-blank, _ = anything
Position on line:
At position: 50
Anywhere
Lines to include:
1
OK
Cancel
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-12 *Include Line dialog box with "." text string highlighted*

3. This dialog box is used to define the settings of an Include Line match string. These settings include pattern match specifications, the character position where the match string must occur, and how many lines are included in the Output File when a match occurs. Press OK to accept the current settings.

Once you have defined the Include Line, your screen should look like the one below:

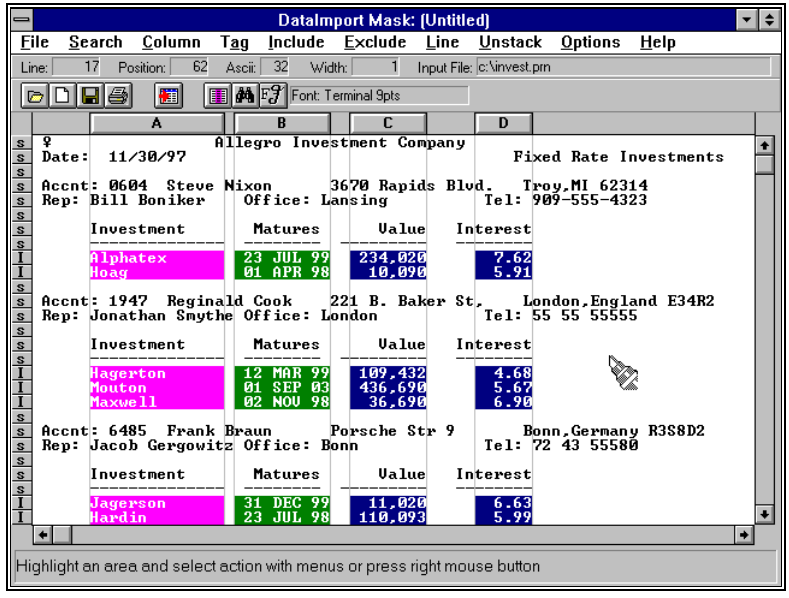

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 17 Position: 62 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-13 *Lines containing a decimal point at position 50 are defined as Include Lines*

Notice that only the lines with the decimal point at position 50 now have colored backgrounds within the defined columns. This coloring indicates which data will be translated to the Output File. Notice that these lines also have an uppercase **I** in the Line Control Bar on the left edge of the Input File window indicating that they are Include Lines.

*You can manually specify the default line treatment by choosing the **Options Global** command, and from the Global Settings dialog box, changing the setting for **Default Line Treatment** to either **Output lines** or **Skip lines**.*

All of the other lines on the report have lost their colored backgrounds, which means that they will not be translated to the Output File. These lines are automatically excluded from translation because DataImport automatically changed the default line treatment to “Skip” after we defined an Include Line match string. The application of the default Skip Line treatment is indicated by a lowercase **s** in the line control bar.

The Include Lines function is an easy way to pick only the data you want from an Input File, instead of sifting through the data in your target application. DataImport has another function called Exclude Lines which allows you to exclude specific data lines from translation. See Chapter 4: Fitting DataImport to Your Needs, “Extracting Data.”

Extracting Non-Columnar Data

As we mentioned earlier, we will also need the client's name, phone number and location output on each investment line. This data is in a non-columnar arrangement above the investment lines. In order to accomplish this, we will use Line Tags and Reference Points.

Defining Reference Points

A reference point is a positional anchor which DataImport uses to locate data that changes within a form or other non-columnar area on a report. One such anchor in our investment report is "Accnt:".

Procedure:

1. Using the Highlighter, select the character string "Accnt:".
2. From the Tag menu, choose **Define Match String Reference Point**. A dialog box will appear. Press OK.

The reference point "Accnt:" should now be shown as red text with a gray background. Now that we have our reference point we can begin to select information about the customer that we want output on each investment line.

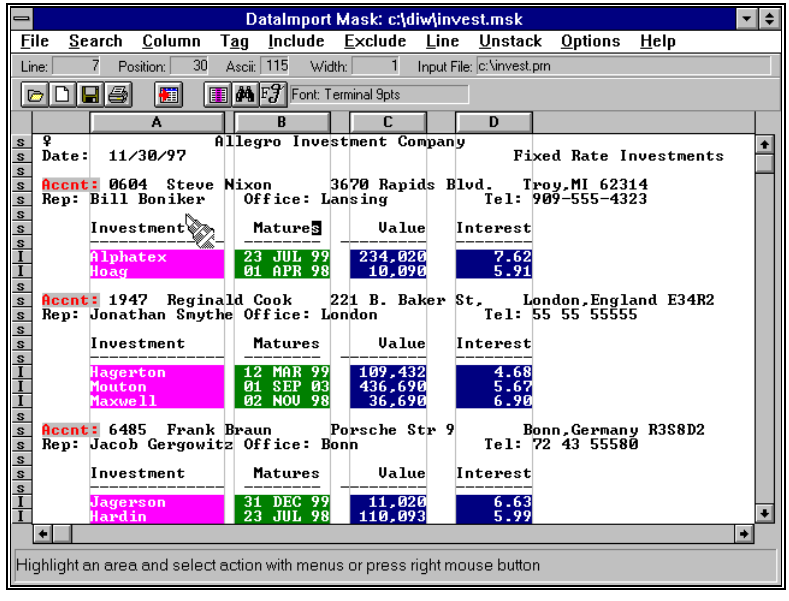

DataImport Mask: c:\diw\invest.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 7 Position: 30 Ascii: 115 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
9 Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-14 *All occurrences of "Accnt:" defined at Reference Points.*

Defining Line Tags

Line tags are the non-columnar data that we want to get into our spreadsheet. When translated, Line Tag information is output on each extracted line. For this report, we will be defining several tags: the client's name, city, state, zip, and telephone number.

Procedure:

1. Using the Highlighter, select the character string “Steve Nixon” and enough blank spaces to the right to select the longest name that will occur.
2. From the Tag menu, choose **Line Tag Define**. In the Tag Settings dialog box, set the type to **Name Parse (first last)** You will then see several checkboxes to indicate how you want the names handled.

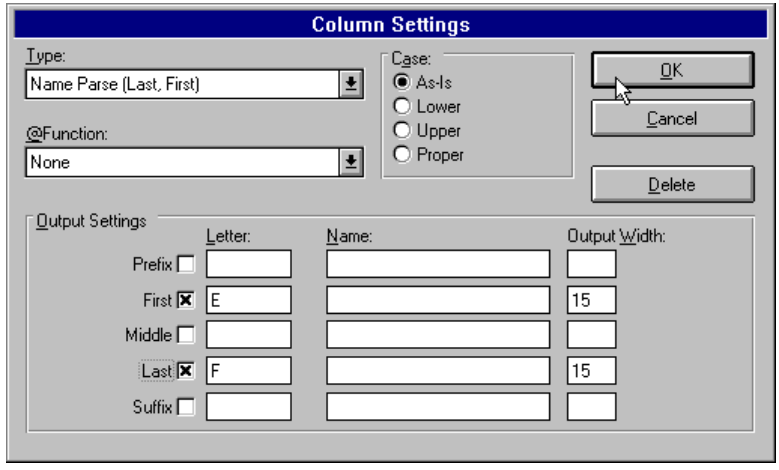


Figure 3-15 *Tag Settings Dialog Box with columns E (first name) and F (last name) defined.*

3. Since the clients names are simple first and last names with no titles, uncheck the prefix box and then check the boxes for first and last name. Note that DataImport can also handle prefixes (ex. Dr., Mr.), middle names, and suffixes (ex. MD, JR.).
4. Press OK to accept the Line Tag.

“Steve Nixon” and all other client names should now be shown as magenta text with a gray background. The client’s first and last names will be output to columns E and F on each investment line.

The next data to select is the City/State/Zip data. This is done in much the same way as names.

*You can also click the right mouse button to display the shortcut menu and then select **Line Tag Define***

Procedure:

1. Using the Highlighter, highlight the character string “Troy, MI 62314” and the necessary additional blank spaces.
2. From the Tag menu, choose Line Tag Define. In the Tag Settings dialog box, set the type to Address. You will then see several checkboxes to indicate which parts of the address you want output.
3. Check the appropriate boxes for City and State.

4. Press OK to accept the Line Tag.

Repeat these steps for the telephone number, and set the tag type to Text. When you are done, your screen should look like the one below.

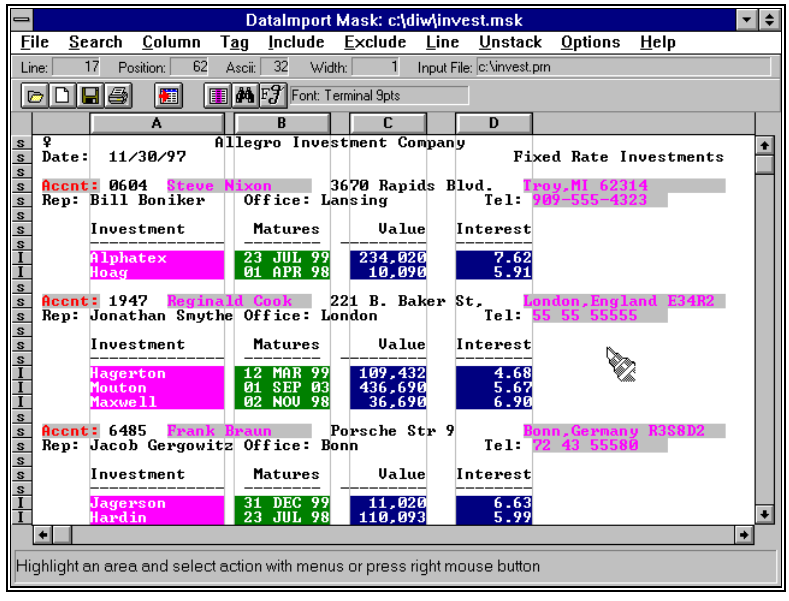

DataImport Mask: c:\diw\invest.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 17 Position: 62 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-16 *Mask screen with all Line Tags defined.*

Report Titles and Headings

Now that we have defined the data we want to extract, we also want to extract information that is not strictly data. For instance, we want the report title and column heading information from the report.

Currently, all lines in our report except those with the decimal point in the interest rate at position 50 have a Skip line treatment; these lines will not be output when a translation is performed. By defining special treatments—called Line Treatments—we can output the report title and column headings.

Extracting Report Titles

The title information from the top of the report should be translated into our Output File as entire lines; not just the parts of these lines that fall within the defined columns. To translate these lines as titles, define them as Title lines:

Procedure:

1. Move the Highlighter over the Line Control Bar on the leftmost edge of the window. When the cursor is over the Line Control Bar it changes to a left pointing hand as shown below. Select lines 1 and 2 by clicking and dragging vertically on the Line Control Bar.

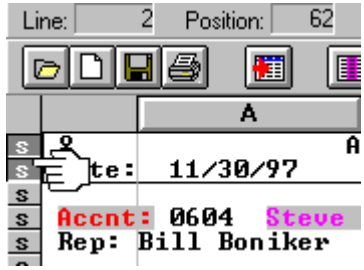


Figure 3-17 *Selecting lines 1 and 2 using the Line Control Bar*

2. Release the left mouse button. The **Line** popup menu will appear.

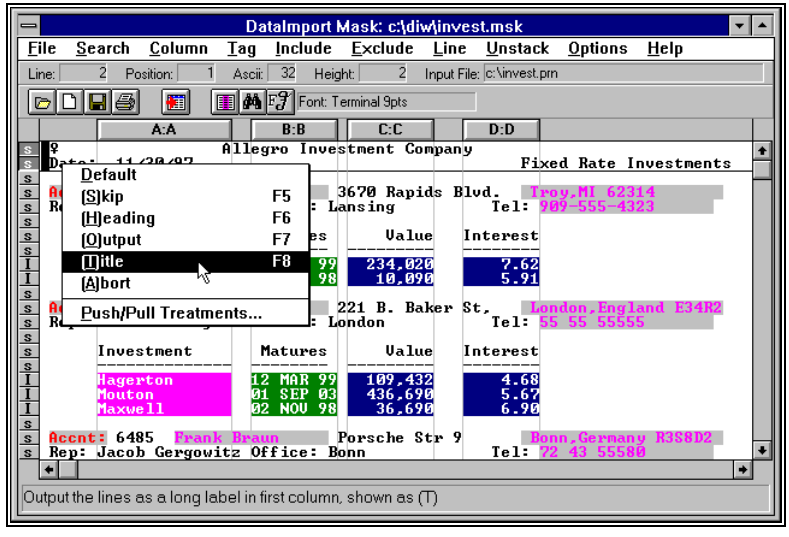

DataImport Mask: c:\diw\invest.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 2 Position: 1 Ascii: 32 Height: 2 Input File: c:\invest.prn
Font: Terminal 9pts
A:A B:B C:C D:D
Allegro Investment Company
Fixed Rate Investments
Default
(S)kip F5
(H)eading F6
(O)utput F7
(T)itle F8
(A)bort
Push/Pull Treatments...
3670 Rapids Blvd. Troy,MI 62314
Lansing Tel: 989-555-4323
Value Interest
234.020 7.62
10.090 5.91
221 B. Baker St, London,England E34R2
London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109.432 4.68
Mouton 01 SEP 03 436.690 5.67
Maxwell 02 NOV 98 36.690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Output the lines as a long label in first column, shown as (T)

Figure 3-18 *Selecting **Title** on the Line popup menu*

3. From the **Line** popup menu, choose **(T)itle**.

The Input File is redisplayed with the first two lines defined as Title as shown below:

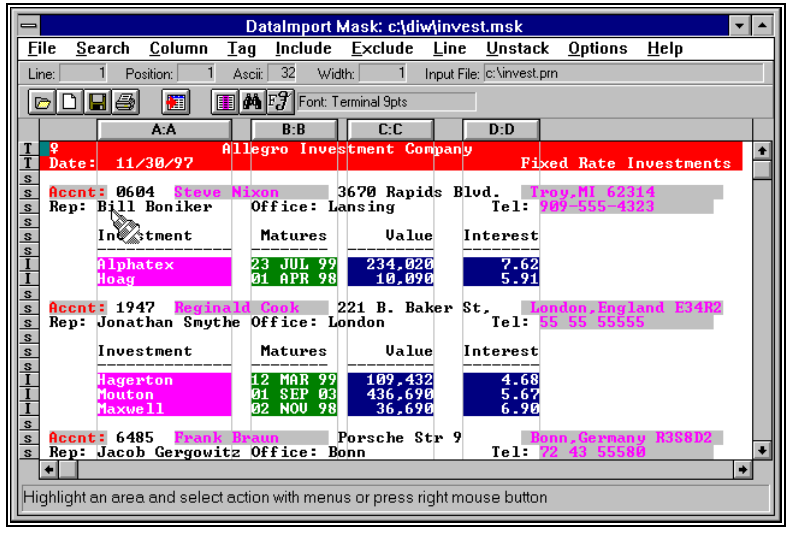

DataImport Mask: c:\diw\invest.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 1 Position: 1 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A:A B:B C:C D:D
T 9 Allegro Investment Company
T Date: 11/30/97 Fixed Rate Investments
s
s Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
s Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
s
s Investment Matures Value Interest
s
I Alphatex 23 JUL 99 234,020 7.62
I Hoag 01 APR 98 10,090 5.91
s
s Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
s Rep: Jonathan Smythe Office: London Tel: 55 55 55555
s
s Investment Matures Value Interest
s
I Hagerton 12 MAR 99 109,432 4.68
I Mouton 01 SEP 03 436,690 5.67
I Maxwell 02 NOV 98 36,690 6.90
s
s Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
s Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Highlight an area and select action with menus or press right mouse button

Figure 3-19 *Lines 1 & 2 defined as* ***Title***

Title Lines are displayed with a red background color, and an uppercase **T** on the Line Control Bar. When translated into a spreadsheet, Title Lines are output into the first column (usually column A) as a single long label that contains the entire line from the report.

Extracting Column Heading Information

We also want the column headings on lines 7 and 8 to be translated into our Output file one time. Use the Line Control Bar to apply Heading treatments to the first occurrence of these lines.

Procedure:

1. Move the cursor onto line 7 of the Line Control Bar.
2. While pointing to line four on the Line Control Bar, press the left mouse button, drag the cursor down to line 8 and release the mouse button. A popup menu will be displayed.
3. From the popup menu, choose **(H)eading**.

The Input File is redisplayed with lines 7 and 8 defined as Heading Lines.

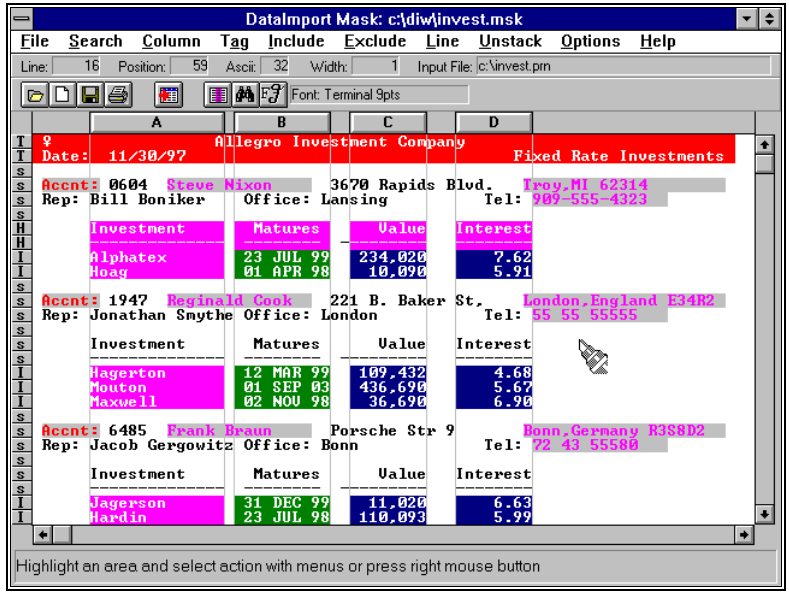

DataImport Mask: c:\diw\invest.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 16 Position: 59 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
Allegro Investment Company
Date: 11/30/97 Fixed Rate Investments
Accnt: 0604 Steve Nixon 3670 Rapids Blvd. Troy,MI 62314
Rep: Bill Boniker Office: Lansing Tel: 909-555-4323
Investment Matures Value Interest
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Accnt: 1947 Reginald Cook 221 B. Baker St, London,England E34R2
Rep: Jonathan Smythe Office: London Tel: 55 55 55555
Investment Matures Value Interest
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Maxwell 02 NOV 98 36,690 6.90
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-20 *Mask window with all relevant data defined.*

Heading Lines are displayed with a magenta background color within defined columns, and with an uppercase **H** on the Line Control Bar. When translated into a spreadsheet, Heading Lines are formatted as labels and are placed as individual cells into their respective columns.

Translating Data

We have selected the rows and columns of data from the report that we want translated into our spreadsheet. Now we need to select an output file type and extract the data to a file.

Choosing an Output File Type

DataImport can translate data from the Input File into Output Files of many different types. In this example, we will select the Output File type Excel 5.0 (which is the same format as Excel 7.0). You may want to choose a different file type.

Procedure:

1. From the **File** menu, choose **Define Output Fil**e. The Output File Selections dialog box is displayed:

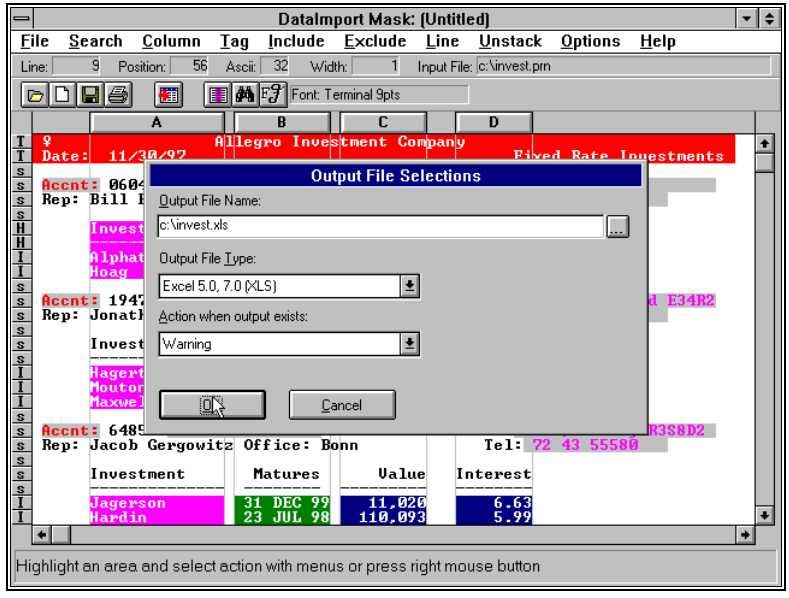

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 56 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
A B C D
Allegro Investment Company
Date: 11/30/97
Fixed Rate Investments
Output File Selections
Output File Name:
c:\invest.xls
Output File Type:
Excel 5.0, 7.0 (XLS)
Action when output exists:
Warning
OK
Cancel
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-21 *Output File Selections dialog box*

2. Click on the arrow to the right of the Output File Type option's drop down list box.

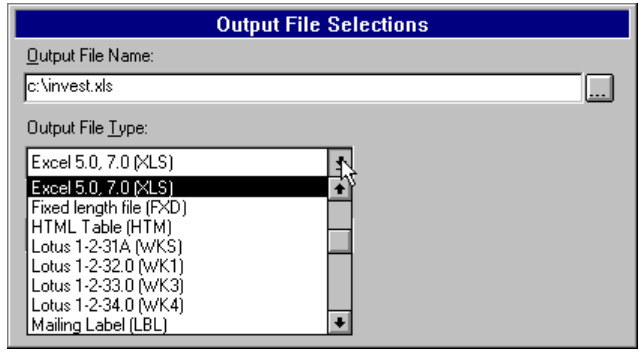


Figure 3-22 *Output File type drop down list*

3. Choose **Excel 5.0, 7.0 [XLS]** or select the type of file that your software requires.
4. Press OK to accept the current selections.

DataImport can create files in nearly 40 formats. See Appendix B: Supported Output Formats for more information.

Almost done!

Running a Translation

Now translate the file into the Output File in the format you chose:

Procedure:

1. From the **Files** menu, choose **Translate**. The Translation Parameters dialog box is displayed:

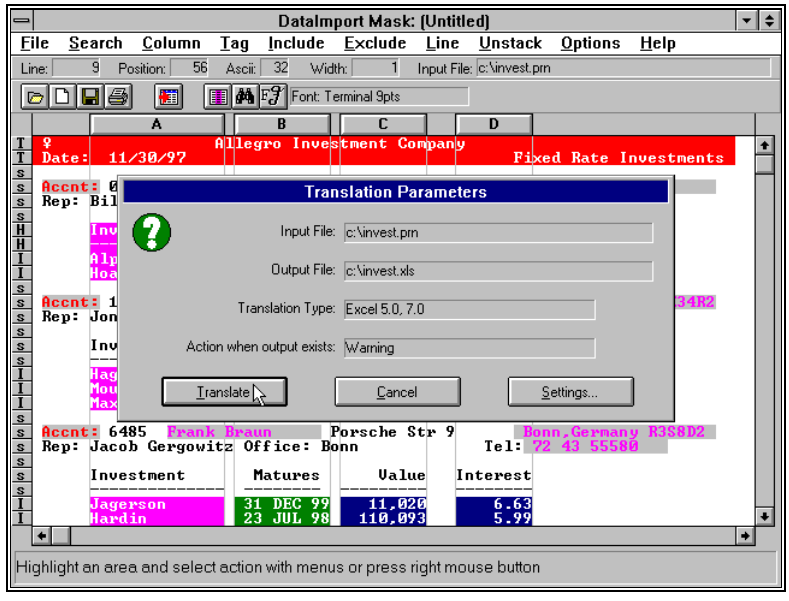

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 56 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
Allegro Investment Company
Date: 11/30/97
Fixed Rate Investments
Translation Parameters
Input File: c:\invest.prn
Output File: c:\invest.xls
Translation Type: Excel 5.0, 7.0
Action when output exists: Warning
Translate
Cancel
Settings...
Accnt: 6485 Frank Braun Porsche Str 9 Bonn,Germany R3S8D2
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-23 *Translation Parameters dialog box.*

2. Press the **Translate** button to begin the translation process. The Translation Progress window is displayed:

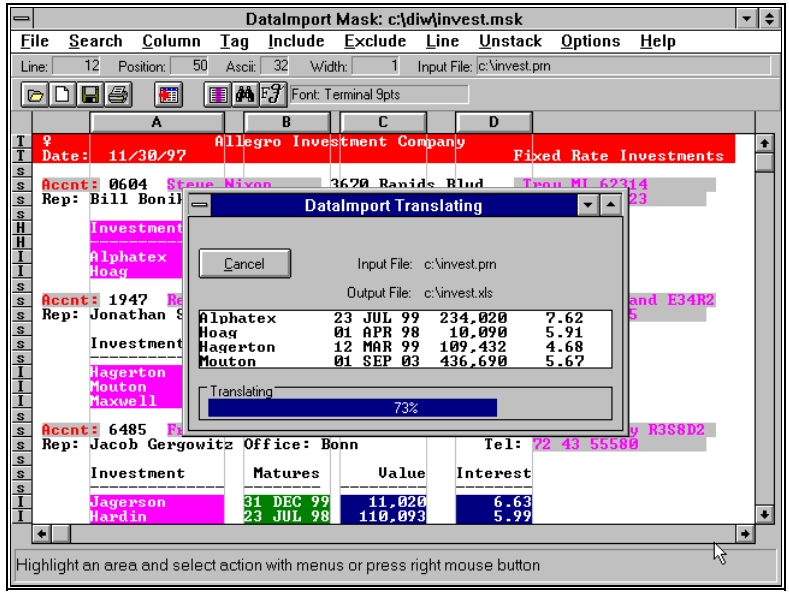

DataImport Mask: c:\diw\invest.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 12 Position: 50 Ascii: 32 Width: 1 Input File: c:\invest.prn
Font: Terminal 9pts
Allegro Investment Company
Date: 11/30/97
Fixed Rate Investments
DataImport Translating
Cancel
Input File: c:\invest.prn
Output File: c:\invest.xls
Alphatex 23 JUL 99 234,020 7.62
Hoag 01 APR 98 10,090 5.91
Hagerton 12 MAR 99 109,432 4.68
Mouton 01 SEP 03 436,690 5.67
Translating
73%
Accnt: 6485
Rep: Jacob Gergowitz Office: Bonn Tel: 72 43 55580
Investment Matures Value Interest
Jagerson 31 DEC 99 11,020 6.63
Hardin 23 JUL 98 110,093 5.99
Highlight an area and select action with menus or press right mouse button

Figure 3-24 *Translating Progress window*

As the report is translated, the selected lines and columns of data are displayed in the Translating window. When finished translating, the title of the window changes to DataImport - Completed! Information about the number of lines read from the Input File and the number of lines written to the Output File is also displayed.

3. Press **Exit** to return to the Mask window.

If you are eager to see the results, switch to your spreadsheet and load the file you just created. Then, please come back for a few final words.

Saving Masks for Reuse

If you get the same report every month or every week, you do not have to define a mask each time you convert the report into your application's file format; you can save it for later use. For example, we will save the mask we have defined for the Investment Report. In the future we can then use the saved mask to translate new versions of this report.

Procedure:

1. From the **File** menu, choose **Save Mask As...** The following dialog box will appear:

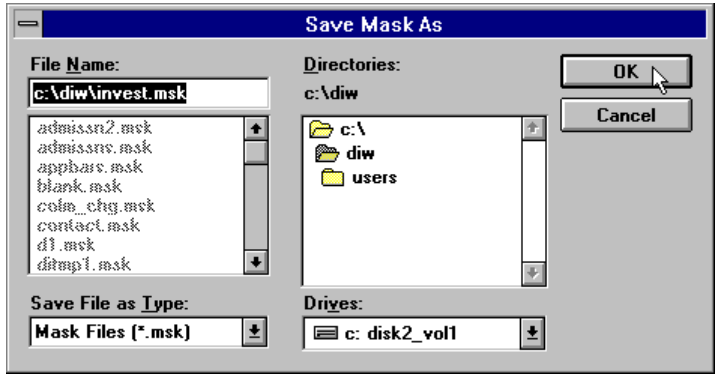


Figure 3-25 *Save Mask As dialog box*

2. The name of the Mask File defaults to the name of the Input File with the extension MSK. The name, drive, and directory of the Mask File can be changed using the options in this dialog box.
3. Press OK to save the Mask File.
4. The Summary Info dialog box will appear. Here you can enter information about the file, as well as the author.

In the future, the quickest way to perform another translation using this saved Mask is to choose the Translate icon from the DataImport program group. In the Translate application window, select the Mask File to be used and translate the Input File. In the Translate window, you can also

temporarily or permanently change the Input File name, Output File name, or translation type saved in the Mask File.

If you will be performing multiple translations on a regular basis this can be automated using DataImport's Task Commander.

Using the Output

You can use the spreadsheet file, or any other file format, created by DataImport in your software just as if you had key entered all of the translated data. Following is the spreadsheet that DataImport translated from the example Investment Report loaded into Microsoft Excel:

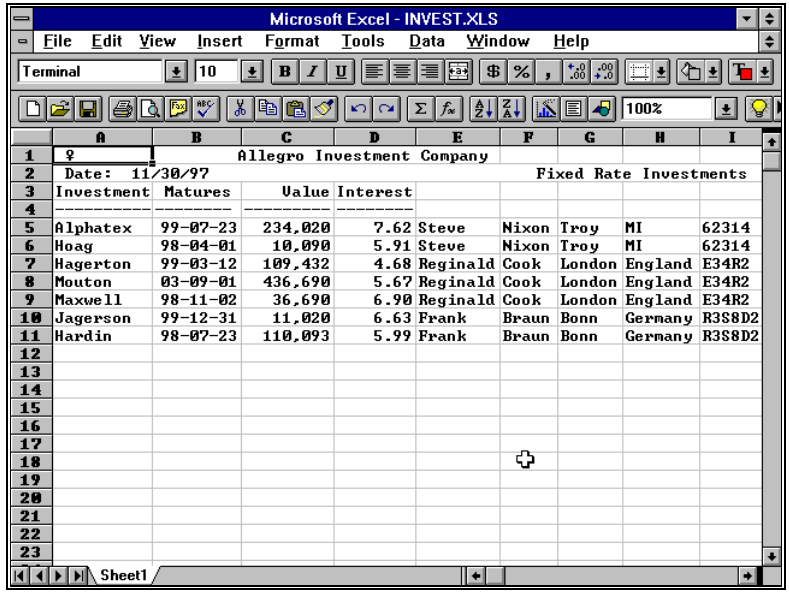

Microsoft Excel - INVEST.XLS
File Edit View Insert Format Tools Data Window Help
Terminal
10
100%
Allegro Investment Company
Date: 11/30/97
Fixed Rate Investments
Investment Matures Value Interest
Alphatex 99-07-23 234,020 7.62 Steve Nixon Troy MI 62314
Hoag 98-04-01 10,090 5.91 Steve Nixon Troy MI 62314
Hagerton 99-03-12 109,432 4.68 Reginald Cook London England E34R2
Mouton 03-09-01 436,690 5.67 Reginald Cook London England E34R2
Maxwell 98-11-02 36,690 6.90 Reginald Cook London England E34R2
Jagerson 99-12-31 11,020 6.63 Frank Braun Bonn Germany R3S8D2
Hardin 98-07-23 110,093 5.99 Frank Braun Bonn Germany R3S8D2
Sheet1

Figure 3- 26 *Excel with translated data*

Notice that all data is properly formatted: dates are formatted as dates, numbers as numbers and columns are set to their proper width.

Now you are ready to do your own translations! Load your own Input File and start masking! If you have trouble loading a file, see the Input and Output section of Chapter 4: Fitting DataImport to Your Needs. The next chapter will also help you deal with problems specific to your Input File and to your data extraction needs. If you have trouble generating an Input File from the application that contains the data you want, check out Appendix C: Getting Data out of Other Applications.

Chapter 4: Fitting DataImport to Your Needs

This chapter identifies specific types of problems in extracting data from input files and how to use DataImport to solve these problems. It is recommended that you read the chapters titled “Introduction” and “Tutorial” first to understand the basic operation of the program.

Input and Output

This section discusses how to get your data into DataImport and out to your spreadsheet, database or analysis program.

Input Files

DataImport works best with Input Files in ASCII text format. If your data application allows it, save a copy of your data to an ASCII text file for best results. If this is not possible, look for a printing option in your data application that will print to a text file, rather than to the printer. These types of options are usually called “print to disk” or “print to file.”

Microsoft Windows provides a printer driver called “Generic / Text Only” print driver that will produce a file you can use with DataImport. If you are familiar with printer drivers, install this driver and connect the driver to the “FILE:” port. If you still need help creating an ASCII text Input File, see Appendix C: Getting Data out of Other Applications.

Output Files

DataImport can create output files for most spreadsheet and database programs including Excel, Lotus 1-2-3, Quattro Pro, Access, Paradox and dBase compatible applications. The list below shows the types of formats DataImport can read and write. If you do not see the format you need, check the README for last-minute format additions.

NOTE Keep in mind that most programs can read earlier versions of their file formats. In most cases, a file format with a version number equal to or less than your software version will work, unless you are combining or appending files. In this case, you must output your data as the same version as the existing output file. You can also output it as an earlier version and append it from within the software.

DataImport Translation Formats

From any of these . . .	To any of these . . .
Any ASCII Text file: (TXT, ASC...)	ASCII (ASC)
Mainframe text reports	Clarion (DAT)
Minicomputer text reports	Columnwise DIF (DIF)
DOS Print to Disk file	Comma Separated Variable (CSV)
Generic / Text Only file (Windows)	dBase II, III, IV (DBF)
Word Processor Text Only file	Excel 2.1, 3.0, 4.0, 5.0, 7.0 (XLS)
Text only accounting reports	Fixed length file (FXD)
E-mail reports	HTML Tables (HTM)
Online communications text capture	Lotus 1-2-3 1A, 2.0, 3.0, 4.0, 5.0 (WK*)
Print to File (PRN)	Mailing Label (LBL)
Tab Separated Variables	Microsoft Access 1.1, 2.0 (MDB)
Comma Separated Variables†	Microsoft Word Merge File (WRD)
Character Separated Variables†	Paradox 3.5, 4.0 (DB)
Fixed length record†	Print Image (PRN)
dBase†	Quattro (WKQ)
EBCDIC†	Quattro Pro (WQ1)
Standard Data Format (SDF)	Quattro Pro 5.0 for Windows (WB1)
	Standard Data Format (SDF)
	Sylk (SLK)
	Symphony 1.0, 1.1 (WRK, WR1)
	Tab Separated Variable (TSV)
	User-Defined Delimited (UDD)
	WordPerfect Merge File (W5*)

Figure 4-1 *Input and Output capabilities of DataImport for Windows*
†These formats are supported through DataImport Utilities conversions.

Input Files

The Input File contains the data you want to translate. The file can be any ASCII file and is typically a print file or output from an application on a mainframe, minicomputer, LAN or stand alone PC.

There is no limit to the number of lines or records in an input file. However, information can only be *displayed* from the first 16,384 lines of a file. With DataImport you can view and translate lines or records as long as 2048 characters from the Input File. Characters beyond the first 2048 characters are ignored.

NOTE If you have a file that is longer than this maximum line width and you need to view or translate characters beyond the 2048 limit, use the DataImport Utilities application and perform a Line Split by Length

on the file. Similarly, if you need to view lines beyond the 16,384 limit, use the Records per File Split process in the Utilities application. Lines beyond the 16,384 limit *are processed* by DataImport—even though you may not see them in the Input File window—with all mask definitions except for manually applied Line Treatments.

DataImport can handle files that have their information formatted many different ways. Files that have their data in a columnar format are easier to work with. Utilities are provided that convert several types of non-ASCII and/or non-columnar files into ASCII columnar files.

The Input File can contain printer control codes (ASCII characters 0 through 31). The control codes can be removed by using the Mask application's **Exclude Characters All Special Characters** command.

Loading an Input File

The Input File containing the information to be translated can be selected from either the Mask application or the Translation application.

Procedure in the Mask application:

1. From the **File** menu, choose **Load Input...**
2. Choose a file from the File Name list box or type the name of the file to be loaded including the full path under File Name.
3. Press OK to load the file.

After an Input File is chosen, it is displayed in the Mask window. If the file does not load or loads with a lot of garbage characters, the Input File is probably not an ASCII text file. Check the output settings in the program from which you obtained your data to make sure it is set to an ASCII text format and try outputting the data again.

If the new data file still has a high percentage of garbage characters, try excluding these characters with the **Exclude Characters All Special Characters** command and see if the text looks right.

If the Input File is still not usable, read the section below to see if you can use the DataImport Utilities application to translate the file.

Converting Other Types of Input Files for use by DataImport

Prior to displaying a file for mask definition, you may want to convert the file using the functions available in the DataImport Utilities program. These functions make mask definition easier and more effective for certain types of files. The following types of conversions are available:

Comma Separated Values Converts a comma separated value file to a fixed length column or file. Users can also specify a separator and string delimiter with this process by typing in the ASCII code of the character.

dBase convert Converts a dBase II, III, or IV data file into an ASCII columnar file with the database field names above each column.

EBCDIC -> ASCII Converts a file that has been downloaded from an IBM mainframe or midrange computer that has EBCDIC encoding into an ASCII encoded file.

Fixed length Breaks up a file with fixed length records without record separators into a fixed length file with record separators.

Line split by length Splits the Input File vertically by producing two or more files, each with a shorter specified part of each line.

Parse spaces Converts a space separated variable file into a file with fixed length fields.

Records per file split Splits a file with a large number of records into several files, each with a specified number of lines.

Tab expansion Expands tabs by inserting spaces to align the data in columns.

Unstack Makes single-line items from multiple lines that logically go together.

Chapter 7: DataImport Utilities Reference provides a complete description of these functions, with illustrations.

Output Files

DataImport places the extracted data in an Output File whose name, file type, and location on the disk is specified by the user. For more information and a list of supported output formats, see Appendix B: Supported Output File Formats.

Choosing an Output File Type

DataImport can translate a file into many different file formats. The correct file extension is automatically appended to each Output File.

The Output File type can be defined from either the Mask or Translate applications. In the Mask application, choose **File Define Output File...** and then choose the output type from the Output File Type: pull-down menu. In the Translate application, choose the output type from the Output File Type pull-down menu.

The available translation types are displayed in the pull-down menu. The currently selected type is highlighted at the top of the menu. Examine the documentation accompanying your target software application to determine the file type and/or file extension required. Remember that most software packages can read an older version of their file formats and can often read the file formats from other programs. Use a format that most closely matches the current version of the software you are using.

Choosing an Output File Name

The Output File name defaults to the Input File name plus the extension of the file format you have chosen. You can change the name of the Output File to any name supported by the operating system. DataImport

adds the file extension based on the type of Output File you want created when the translation is performed.

When a mask is saved, DataImport saves the name of the last specified Output File with the mask. This name is used again when the mask is used for translation later unless you change it then.

The Output File name can be specified in the Mask application by selecting the **File Define Output File...** command. You may also specify the Output File name in the Translation application by selecting the Output File Name option.

NOTE If you are performing a file append or combining files, the output file name must have the same name as the existing output file. See the next section for more information about appending and combining.

Translating to Existing Output Files

The output of a DataImport translation is usually to a new file, however, you can direct the output to an existing file. DataImport can simply replace the data in the existing file with data from the current translation and—in some cases—append the new data to the end of the existing file or combine the new data with the data in the existing file.

You set DataImport to automatically Append, Combine or Replace by choosing **File Define Output File...** and selecting one of these options from the **Action when output exists** menu.

Appending Data to an Existing File

If the Output File type is a spreadsheet or a database, DataImport can append the data from the current translation to the end of the existing file.

Combining Data into an Existing Spreadsheet File

For spreadsheet output types, DataImport can combine the data from the current translation into the existing spreadsheet file at a specific row and column address. To set the starting address for a file combine, choose **Options Global**, type in the Starting Cell Address and press OK.

DataImport's combine option works in much the same way as the File Combine option in Lotus 1-2-3 and other spreadsheet programs.

Database File Considerations

Database files contain a database structure that contains information such as field names, field lengths, and field types. This information is written to the database file when it is created.

If a database file exists when you output the data, DataImport uses the current database structure—even if it is different from the structure in the mask. If the file does not exist, DataImport automatically creates a structure using the settings defined in the mask.

IMPORTANT!: If you are using DataImport to create the structure of the database and you redefine the mask to include more or fewer columns, change a field type or column width after translating, delete the database file and associated structure created by DataImport

before proceeding. If you do not delete the first database, the structure will remain intact and DataImport will not alter the structure even if you change the mask.

Cleaning-Up Input Files

In many cases, your Input Files may not be a simple ASCII text file, especially if they are print to disk files from a mainframe, midrange or PC. These files often contain printer codes, control codes or other special characters. *Special characters* are non-alphanumeric characters with ASCII codes from 0 through 31. This section discusses how to remove these characters from the Mask display and your Output Files.

NOTE All clean-up functions described in this section do not in any way change the actual content of the Input File. These functions simply suppress the display of specific characters or text in the Mask window and tell DataImport to ignore this information when translating a file.

Special Characters

An Input File can contain any number of special characters or "garbage characters" that make a file harder to read and are not needed in the Output File. All single character control codes can be removed with the Exclude Characters All Special Characters command. This option removes all ASCII characters with codes of 0 through 31 except for the escape character (ASCII 27). Escape characters are not removed so that printer control codes can be identified and excluded more easily.

Blank Lines

To remove all blank lines in an Input File, choose the Exclude Blank Lines command. The current status of this command is indicated with a check mark next to the Blank Lines option in the Exclude menu. If the check mark is present, the Exclude Blank Lines command is active.

Page Ejects

A *page eject* or the ASCII 12 character is a standard printer control code for causing a printer to feed to the top of the next page. To remove all page eject characters from the current Input File, choose **Exclude Page Ejects**.

The current status of this command is indicated with a check mark next to the **Page Ejects** option in the Exclude menu. If the check mark is present, the **Exclude Page Ejects** command is active.

Duplicate Lines

Some programs print a line, perform a carriage return without a line feed, and print the line again. This results in "bold" print that is used for emphasizing titles and headings on reports. The Exclude Duplicate Lines

command removes the second line of print from this style of report or any line that is exactly the same as the preceding line.

The current status of this command is indicated with a check mark next to the **Duplicate Lines** option in the Exclude menu. If the check mark is present, the **Exclude Duplicate Lines** command is active.

Escape Sequences

Escape sequences are a string of two or more characters beginning with the escape character (ASCII 27) that provide control instructions to a printer.

To remove an escape sequence, or any other string of characters, select the sequence with the highlighter and choose **Exclude Characters Define...** Apply the exclude function by pressing OK.

First Position Carriage Control

Carriage control characters are another type of printer control that is included in reports created by some programming languages on certain computers. FORTRAN, for example, uses the first character position of each line to indicate line feeds and form feeds to the printer.

To ignore carriage control characters in the first position of every line, choose **Options Global...** and in the First positions to exclude field, type the number of characters to exclude (usually 1) and press OK. The file will then be re-displayed with these positions removed.

Extracting Data

DataImport provides many facilities for extracting data from columnar reports and forms. If your data is not columnar, also see “Unstacking Multiple Lines of Data” on page 53 and “Putting Header or Form Information into Columns“ on page 55 for information on organizing data in columnar format.

This section discusses how to use DataImport’s Masking processes to extract data and other information from computerized reports, including defining columns, extracting groups of information, excluding lines and extracting specific lines.

Columnar Data

DataImport is effective in extracting data arranged in columnar format and provides many facilities for extracting this data efficiently. One of the primary tools that DataImport provides is the capability of including specific data lines in the translation process. These features allow you to easily extract only the data you want without extensive processing in your spreadsheet or database manager.

Defining Columns

Columns are used to define the positions, or cells, within each line of the Input File that will be translated to the Output File. Data is translated only

if included within the defined range of a column, or a line tag as explained later in this chapter. A column encompasses all lines in the Input File for the range specified. A maximum of 256 columns can be defined in any one mask and columns cannot overlap.

To extract data from an Input File, columns are usually defined. As you learned in Chapter 3: Tutorial, there are several ways of defining columns. You can create a column in several ways manually, or use DataImport's AutoColumn feature to automatically define columns. You can also add columns or remove columns from an existing mask to suit a particular need.

After a column is defined, the type of data in the column can be specified. The output sequence of columns can also be defined, see "Resequencing Data Columns" on page 53.

Manual Column Definition

Columns may be defined by highlighting sample data that indicates the width of a column and either using the **Column Define...** command, or by using the right mouse button to do a Column Define. Columns can also be defined by dragging the cursor over the Column Control Bar. Columns cannot overlap each other.

Automatic Column Definition

You can automatically define columns by simply selecting a line in the file for DataImport to use as a pattern to establish column positions. This method disregards all previous column specifications and defines columns for the entire length of the selected line.

To define columns using this method, place the cursor on the line to be used as the pattern, then choose the **Column Auto Define All** command. The Input File will then be re-displayed with the new column definitions.

DataImport can also be set to automatically define columns when an Input File is first displayed on the Mask Screen. If the resulting columns are inappropriate (the complexities of some file structures may produce undesirable column definitions), you can modify the automatic column definitions accordingly.

To activate the automatic column definition feature choose **Options Preferences** and mark the Automatically define columns option.

Removing Columns

All columns or a specific column can be removed from the mask. To remove all columns from the mask, select the **Column Undo All** option. To remove a specific column, move the cursor into the column and then choose the **Column Undo** command.

Including Data Lines

In some cases, you may want to include specific lines of data from computer reports. You may be specifically interested in data from particular regions or information about a certain product. The DataImport

Mask application allows you to include this information from your input files using the Include functions.

There are three ways to specifically include lines for translation to an Output File. By setting DataImport to globally Output Lines (**Options Global**, Default Line Treatment: Output Lines Mode), all lines in an input file are included in the Output File. Lines containing a specified string of characters can be automatically output. Or, a particular line can be included manually.

Including Lines with a Match String on the Line

DataImport can include all lines for translation that contain a specified match string. The match string can be a specific string of characters, or a pattern match string that contains wildcard characters. This feature (usually used in Global Skip Line Mode), is useful when selecting specific lines that all contain common information, or a range of lines starting with a line containing the specified string of characters.

Lines included in this way are translated the same way as Output Lines. A line already treated as an Output Line, Title or Heading that does not contain the specified string is not affected by the use of the Include Line feature; they are always output.

To include lines, examine the lines that are to be output and identify a string of characters or a pattern unique to these lines. Now define these characters as the criteria for including lines using the **Include Line Define...** command:

1. Highlight a text string to cause the line to be included in the translation.
2. From the **Include** menu, choose **Lines** and then **Define...**
3. The Define Include Line dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.

If the match string should be exactly what you selected, do not make any changes to the text. If the match string should be different, change the text as necessary. If the match string should be a general pattern, use the wildcard characters to define the type of characters allowed in each position.

The following wildcard characters are used to define the type of characters allowed in each position of a Match String. All other characters in the pattern match string require that character at that position.

^	(caret)	Any number (0 through 9)
!	(exclamation)	Any character except 0 through 9
~	(tilde)	Any character except blank
_	(underscore)	Any character including blank

Figure 4-2 *Pattern Match wildcard characters*

4. In the Position on line field, choose At position or Anywhere.

Choose At position if the lines should be included only when the string is found at the same character position as the original match string. Choose Anywhere if the line should be included if the string is found at any position in the line.

5. Press OK to apply the Include command.

The file will be re-displayed with the lines to be included marked with an "I" in the Line Control Bar on the left side of the Input File window.

Including a Variable Number of Lines with a Single Match String on or Before the Lines

Some reports group a varying number of lines together for a region, product or sales office with the name of the group shown only above or on the first line of that group. There is no unique text on each line of the desired group that can be used as a match string for the Include Line feature. In this case, you can include these lines by using the Pause and Resume feature.

Pause and Resume commands start or stop translation of a file when match strings are encountered. When a Pause match string is encountered in an input file, that and all lines after it will be skipped until a Resume match string is encountered.

To include line groups in the Output File, identify a character string that identifies the beginning of the line groups that you want to include and then use the **Include Resume Define...** command to insert a resume in translation at these points. In the **Define Resume String** dialog box, check the Begin in Pause Mode box if the lines to be included are not at the beginning of the report.

The Mask window will display the Input File with the new resume definition. Resumed lines will have color highlighting.

To stop extracting lines, identify a character string that identifies the end of the lines that you want to include and then use the **Exclude Pause Define...** command to insert a pause in translation at these points.

The Mask window will display the Input File with the new pause definitions. Paused lines will not have any color highlighting and a "P" will appear in the left margin for any paused line. Only one Pause and one Resume definition can be defined in a Mask.

Outputting Individual Lines

Occasionally you may need to include lines that do not share a common text string. In this case DataImport allows you to manually Output lines.

To manually output lines, highlight a range of lines and choose the **Line (O)utput** command. The line will be re-displayed with color highlighting and a "o" will appear in the Line Control Bar to the left of the line.

Excluding Data Lines

In some cases, you may want to ignore or exclude specific lines from being translated. You may not be interested in data from particular regions or information about a certain product. The DataImport Mask application allows you to exclude this information from your output files using the Exclude functions.

There are four ways to exclude lines from output. By setting DataImport to globally Skip Lines (**Options Global**, Default Line Treatment: Skip Line Mode) all lines in an input file are excluded. Lines containing a specified string of characters can be automatically excluded. Lines can be set to be skipped individually based on their line position in the input file. Or, lines that contain a specific range of values within a column can be excluded from translation.

Excluding Lines with a Match String on the Line

DataImport can be instructed to exclude all lines from translation that contain a specified match string. The *match string* is a specific string of characters, or a pattern match string that contains wildcard characters. This feature (usually used in Global Output Lines Mode), is useful when excluding lines that contain common information from translation into the Output File. This feature can also be used to exclude recurring page titles and headers.

To exclude lines, examine the lines that are to be ignored and identify a string of characters or a pattern of numbers or letters unique to these lines. Now define these characters as the criteria for excluding lines using the **Exclude Line Define...** command:

1. Highlight a text string to cause the line to be excluded from translation.
2. From the **Exclude** menu, choose **Lines** and then **Define...**
3. The Define Exclude Line dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.

   If the match string should be exactly what you selected, do not make any changes to the text. If the match string should be different, change the text as necessary. If the match string should be a general pattern, use the wildcard characters to define the type of characters allowed in each position. For a list of pattern match characters, see Appendix F: Match String Wildcard Characters.
4. In the Position on line field, choose At position or Anywhere.

   Choose At position if the lines should be excluded only when the string is found at the same character position as the original match string. Choose Anywhere if the line should be excluded if the string is found at any position in the line.
5. Press OK to apply the Exclude command.

The file will be redisplayed with the lines to be excluded marked with an "E" in the Line Control Bar on the left side of the Mask window.

Excluding Lines with Column Limits

Lines can be excluded from translation that contain values that are lower or higher than the specified limits in a column. After a column is defined, limits can be set by entering an upper limit, a lower limit, or both. How DataImport prompts for limits is dependent on the column type; numeric, text, date, or time.

To define a column limit, click in the column and choose **Column Settings...** The Column Settings dialog box appears. Type in an upper limit, a lower limit or both in the Limits fields and press OK to apply the limit.

Lines with values in the column that are higher or lower than the limits are displayed without a background color. An uppercase "E" also appears in the Line Control Bar to indicate that the line is Excluded.

Numeric data, dates and times are excluded based on their numeric value. Text is excluded based on its alphanumeric ASCII value order. This order starts with numbers, then uppercase letters, then lower case letters. For example a limit between an upper limit of 1A to a lower limit of Z is valid, but a range from an upper limit of A to a lower limit of 9 is not.

If the column type is changed, the limits for the column are eliminated. To eliminate or undo the test for limits in a column, delete the limits from the Limits fields for the column.

Skipping Individual Lines

Occasionally you may need to exclude lines that do not share a common text string. In this case DataImport allows you to manually skip lines.

To manually skip lines, highlight the range of lines to be skipped and choose the **Line (S)kip** command. The line will be redisplayed without any color highlighting and an "S" will appear in the Line Control Bar to the left of the line.

Aborting Translation Automatically

Some Input Files may be very long and you may only need to translate the first section of the data or you may want to test the results before translating the whole file. In this case DataImport allows you to define an artificial end of file that will stop the translation when it reaches a particular line.

To define an end of file, click on the line below the last one you want to translate and choose the **Line (A)bort** command. The line will be re-displayed without any color selection, an "A" will appear in the left margin of the Mask window for that line and a small "a" will appear on every line following it.

Default Line Treatment

DataImport has two modes for the default treatment of lines. One mode assumes that the data on all lines is to be translated unless the line is specifically Excluded or Skipped. This mode is called Global Output Line Mode. The other mode assumes that no lines are to be translated unless they are specifically included. This mode is called Global Skip Line Mode.

In Global Output Mode, Include Lines have precedence over Exclude Lines. That is, if an include match string occurs in an Exclude Lines' range, the Include Lines will be translated. In Global Skip Line Mode, Exclude Lines have precedence over Include Lines; if an exclude match string occurs in an Include Lines' range, the Exclude Lines will not be translated.

To set the default line treatment, choose **Options Global...** and under Default Line Treatment mark either the Output lines or Skip lines option.

Titles and Headings

*To keep repetitive titles and headings from being output, see the previous section titled **Excluding Lines with a Match String on the Line** on page 50.*

Some reports contain a title or headings that do not belong in data columns but which you may want to include in your spreadsheet. DataImport allows you to define lines as titles or headings that are written to spreadsheet Output Files. These line definitions are called line treatments.

To define a line as a Title or Heading, select the lines to be defined and choose the **Line (T)itle** or the **Line (H)eading** command.

Heading The data within the columns on each Heading Line is translated as text (non-numeric). The line is displayed with a magenta background and an "H" appears in the left margin. Notice that lines defined as headings include only data in defined column ranges, not data for the entire line. To include the entire line, see the Title treatment below.

Title The entire line is translated as a single text string (non-numeric) and column definitions are ignored. The entire line is displayed with a red background and a "T" is displayed in the left margin.

To restore the default setting for a range of lines that have been defined with Titles, Headings or other Line Treatments, select the lines to be restored and choose **Line Default**.

Reorganizing Data

Some Input Files may not have data organized in a way that is appropriate for your type of spreadsheet or database. Rows and columns may be switched, different types of data may be stacked on top of one another or columns may simply not be in the right order. This section discusses some data organization problems and how to use DataImport to solve these problems.

Resequencing Data Columns

When a mask is defined, DataImport orders the columns according to the sequence in which they are defined on the screen. If this sequence does not put the information in the most usable order, you can resequence the columns. For example, you could switch positions of column C and column A. The new sequence would be C, B, A, D.... This option is useful when the Output File is an existing database whose structure orders information differently from the Input File. Columns can also be skipped (e.g., A, D, E, K).

To resequence a column, click in the column to be resequenced, choose **Column Settings...** and type the new column letter in the Letter field. If the letter is already in use by another column the letters of the two columns are switched. Line Tags can be resequenced in a similar way.

Unstacking Multiple Lines of Data

Some reports stack multiple line sets of data on top of one another. For instance, in a sales report for different regions, the report might list the region on the first line along with the daily sales and then list the monthly and yearly sales for that region on the next two lines. The easiest way to handle this is if the daily, monthly, and yearly data are on the same line so that they can be put into their own columns. The Unstack function allows you to do this automatically.

In order to unstack data, you use a text match string to identify the first line of each set of lines and then define how many lines of data are stacked.

Procedure:

1. Select a text string which identifies the first line of each set of stacked lines.
2. From the **Options** menu, choose **Unstack** and then **Define...**
3. In the Lines to unstack field, enter the number of lines to unstack.
4. To apply the unstacking function, press OK.

The following example illustrates how a report file with stacked lines looks before and after it is converted.

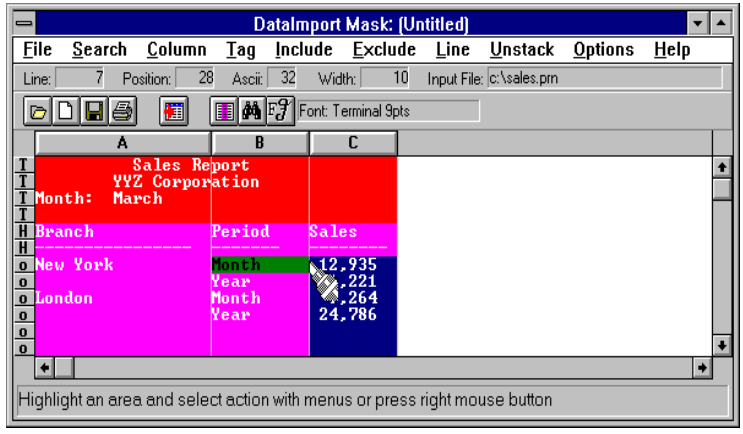

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 7 Position: 28 Ascii: 32 Width: 10 Input File: c:\sales.prn
Font: Terminal 9pts
A B C
Sales Report
YYZ Corporation
Month: March
Branch Period Sales
New York Month 12,935
Year 31,221
London Month 9,264
Year 24,786
Highlight an area and select action with menus or press right mouse button

Figure 4-3 *Stacked Input File with columns and headings defined*

In this example, the Unstack command was defined with “MONTH” as the match string and 2 Lines to unstack. The screen below shows the results of the Unstack command.

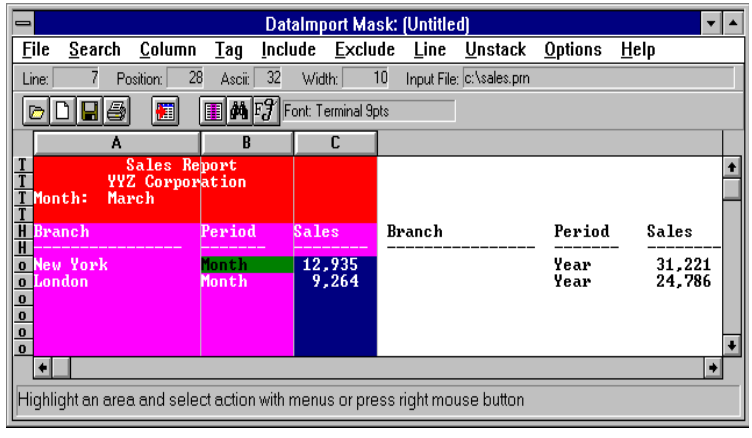

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 7 Position: 28 Ascii: 32 Width: 10 Input File: c:\sales.prn
Font: Terminal 9pts
A B C
Sales Report
YYZ Corporation
Month: March
Branch Period Sales Branch Period Sales
New York Month 12,935 Year 31,221
London Month 9,264 Year 24,786
Highlight an area and select action with menus or press right mouse button

Figure 4-4 *Unstacked data*

Notice that the yearly data has been moved into new columns to the right of the monthly data and that the Heading information has been duplicated in the new columns. To complete the mask definition, two new columns should be defined for the new yearly PERIOD and SALES.

If the Input File is a report with a heading at the top of each page that can sometimes occur within a block of lines, it may be necessary to define a mask and perform a translation to a print image file (.PRN) to remove the headings before unstacking the file.

Unstacking is also very useful for preparing a text file of names and addresses created with a word processor for translation into a spreadsheet or database file. Unstacking such a file can produce separate columns for

name, street address, and city/state/zip code. Only one Unstack command is allowed per Mask.

Getting Data from Multiple Lines into the Same Cell

Sometimes reports contain multiple lines for a single field, such as this inventory report:

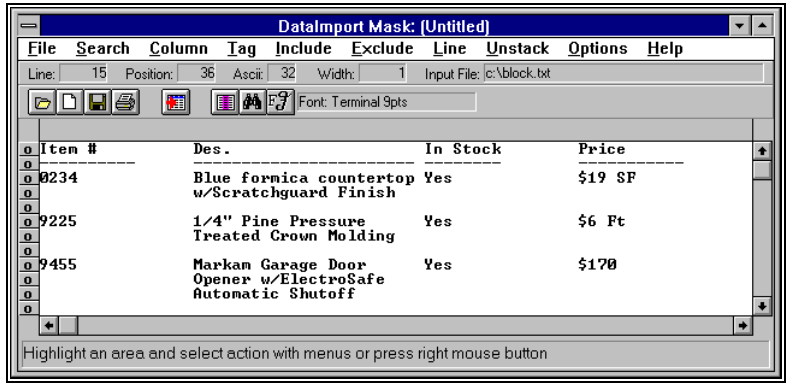

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 15 Position: 36 Ascii: 32 Width: 1 Input File: c:\block.txt
Font: Terminal 9pts
Item # Des. In Stock Price
0234 Blue formica countertop w/Scratchguard Finish Yes $19 SF
9225 1/4" Pine Pressure Treated Crown Molding Yes $6 Ft
9455 Markam Garage Door Opener w/ElectroSafe Automatic Shutoff Yes $170
Highlight an area and select action with menus or press right mouse button

Figure 4-5 *Input File with Multiple Data Lines per Field*

When outputting a text block, make sure that you set the column width on the Column Define dialog box to be wide enough to contain the longest block of text.

Note that the description field contains multiple lines of data. To get multiple lines of data into the same cell, use the column type *Text Block.* Text Block instructs DataImport to keep adding data from multiple lines in a column into the same cell (or field) during translation until the next line is to be output or a blank cell in the column is encountered. You can also specify the Block to be a fixed number of lines.

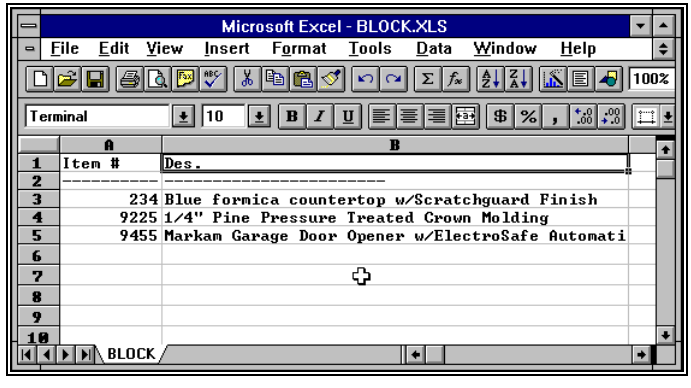

Microsoft Excel - BLOCK.XLS
File Edit View Insert Format Tools Data Window Help
Terminal 10
Item # Des.
234 Blue formica countertop w/Scratchguard Finish
9225 1/4" Pine Pressure Treated Crown Molding
9455 Markam Garage Door Opener w/ElectroSafe Automati
BLOCK

Figure 4-6 *Translated file with Text Block*

Pulling Data out of Page and Section Headings

Reports often list information in headers or elsewhere on the page. This data is not listed in columns and is often preceded by a repeated title. For

instance, on an invoice report, the title “Region:” would appear on every page followed by the name of the region like “Northeast” or “South”.

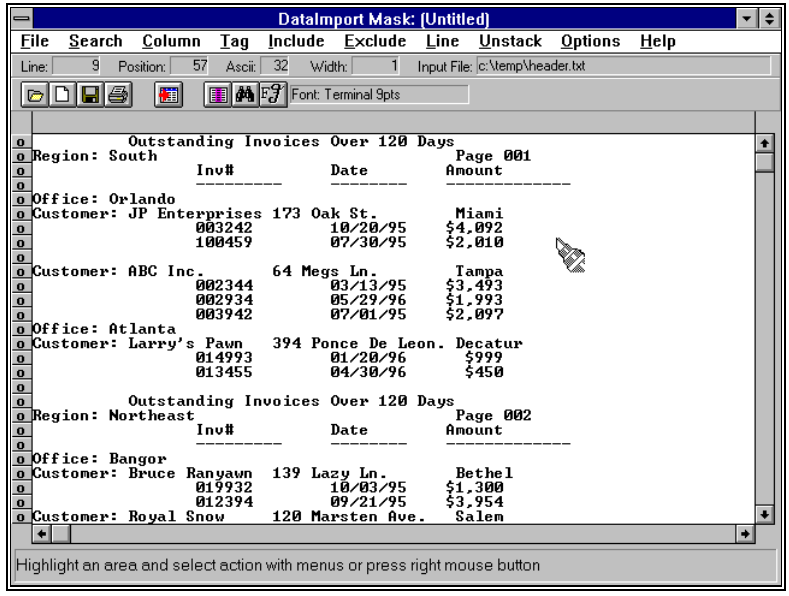

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 57 Ascii: 32 Width: 1 Input File: c:\temp\header.txt
Font: Terminal 9pts
Outstanding Invoices Over 120 Days
Region: South Page 001
Inv# Date Amount
Office: Orlando
Customer: JP Enterprises 173 Oak St. Miami
003242 10/20/95 $4,092
100459 07/30/95 $2,010
Customer: ABC Inc. 64 Megs Ln. Tampa
002344 03/13/95 $3,493
002934 05/29/96 $1,993
003942 07/01/95 $2,097
Office: Atlanta
Customer: Larry's Pawn 394 Ponce De Leon. Decatur
014993 01/20/96 $999
013455 04/30/96 $450
Outstanding Invoices Over 120 Days
Region: Northeast Page 002
Inv# Date Amount
Office: Bangor
Customer: Bruce Ranyawn 139 Lazy Ln. Bethel
019932 10/03/95 $1,300
012394 09/21/95 $3,954
Customer: Royal Snow 120 Marsten Ave. Salem
Highlight an area and select action with menus or press right mouse button

Figure 4-7 *Input file with Page and Section Headings*

You may want to put this type of information into a database or spreadsheet as single rows or records. DataImport allows you to place this information in columns by defining positional anchors or Reference Points on a sheet which point to fields of data or Line Tags.

A *Reference Point* is a positional anchor which DataImport uses to locate data that changes within a form or other report. There can be up to 100 Reference Points within a given Mask. In the example above, the word "Region” would serve as a reference point to data that changes from page to page. In this case, the changing data is the location or region of the invoices. A reference point can also be a top of form, or assumed to occur every specified number of lines.

A *Line Tag* is a field of data positioned at fixed places on a page which is located with a Reference Point. In the example above, the different regions (“South” and “Northeast”) would be a Line Tag which would be located with the “Region” Reference Point.

Line Tagging works much the way it sounds: Data from Line Tags is output on each extracted data line, thus “tagging” each line with information. Each Line Tag you define is output as a column in addition to the columns that have a button on the line control bar.

The Line Tag function updates the information each time it encounters a Reference Point with which it is associated. In the example above, the Line Tag for the region information is updated each time DataImport encounters the Reference Point “Region:” text string in the Input File.

The Line Tag function allows DataImport to “read” certain data from the Input file by looking for a keyword (the Reference Point) and then looking down, and to the right and left of the keyword for specific information (the Line Tag).

You tell DataImport where to find Line Tag information by first defining a match string that is used as a Reference Point and then defining the relative position of the Line Tag information to the Reference Point. Information in each Line Tag column is repeated on each output line until the Reference Point match string is encountered on another line, at which point the Line Tag information is refreshed.

For example, if the Input File contains a date in the heading of each page, the date can be output on every line. By defining a Reference Point and then the date as a Line Tag, every time the program encounters another occurrence of the Reference Point during translation, the next date will be output as a Line Tag.

Before a Line Tag can be defined, at least one Reference Point must be defined . You can define up to 100 Reference Point match strings. There is no limit to the number of defined Line Tags. When a Line Tag is defined, it is associated with the closest Reference Point occurring before the tag.

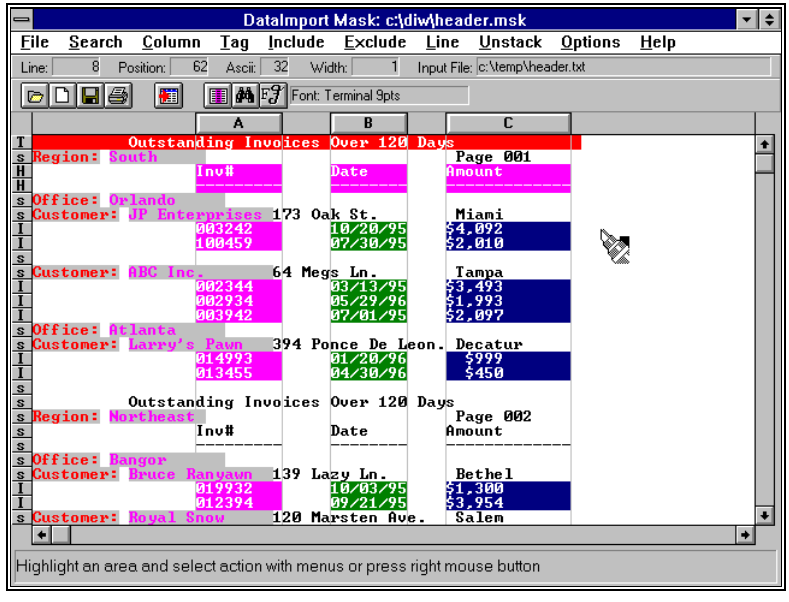

DataImport Mask: c:\diw\header.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 8 Position: 62 Ascii: 32 Width: 1 Input File: c:\temp\header.txt
Font: Terminal 9pts
A B C
Outstanding Invoices Over 120 Days
Region: South Page 001
Inv# Date Amount
Office: Orlando
Customer: JP Enterprises 173 Oak St. Miami
003242 10/20/95 $4,092
100459 07/30/95 $2,010
Customer: ABC Inc. 64 Megs Ln. Tampa
002344 03/13/95 $3,493
002934 05/29/96 $1,993
003942 07/01/95 $2,097
Office: Atlanta
Customer: Larry's Pawn 394 Ponce De Leon. Decatur
014993 01/20/96 $999
013455 04/30/96 $450
Outstanding Invoices Over 120 Days
Region: Northeast Page 002
Inv# Date Amount
Office: Bangor
Customer: Bruce Banyaun 139 Lazy Ln. Bethel
019932 10/03/95 $1,300
012394 09/21/95 $3,954
Customer: Royal Snow 120 Marsten Ave. Salem
Highlight an area and select action with menus or press right mouse button

Figure 4-8 *Input file with all relevant data defined*

Make sure to define the Line Tag with a selection that is as wide as the largest information that will occur in that position. For example, if the first Line Tag is “South”, make sure to select some space after “h” so that the “east” at the end of “Northeast” does not get cut off. Line Tags are

assigned column letters sequentially in the order they are defined. Their sequence can be changed.

Options that can be selected for a normally defined column can also be selected for a column defined by use of Line Tags. This includes selecting the Type, Column Letter, Name, and @Function. To set the properties for a Line Tag column, click inside the text of the Line Tag you want to define and choose **Tag Line-Tag Define...** The Tag Settings dialog box will appear. Set the column definitions for the Tag as you would for a normal column and press OK to apply the new definitions.

Below is the translated input file in Excel.

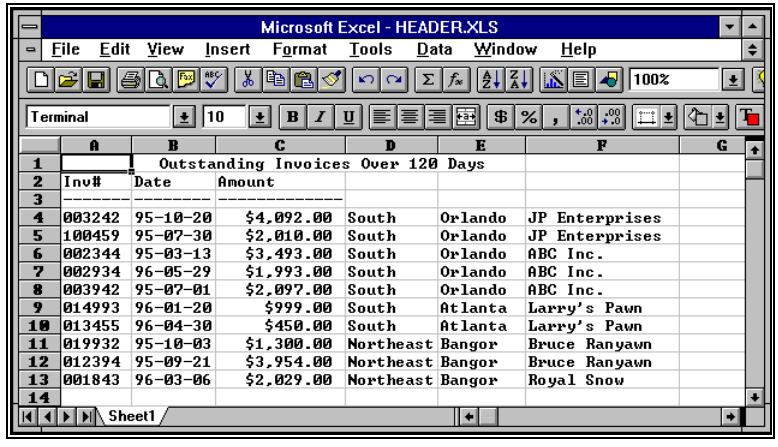

Microsoft Excel - HEADER.XLS
File Edit View Insert Format Tools Data Window Help
100%
Terminal
10
Outstanding Invoices Over 120 Days
Inv# Date Amount
003242 95-10-20 $4,092.00 South Orlando JP Enterprises
100459 95-07-30 $2,010.00 South Orlando JP Enterprises
002344 95-03-13 $3,493.00 South Orlando ABC Inc.
002934 96-05-29 $1,993.00 South Orlando ABC Inc.
003942 95-07-01 $2,097.00 South Orlando ABC Inc.
014993 96-01-20 $999.00 South Atlanta Larry's Pawn
013455 96-04-30 $450.00 South Atlanta Larry's Pawn
019932 95-10-03 $1,300.00 Northeast Bangor Bruce Ranyawn
012394 95-09-21 $3,954.00 Northeast Bangor Bruce Ranyawn
001843 96-03-06 $2,029.00 Northeast Bangor Royal Snow
Sheet1

Figure 4-9 *Translated invoice data in Excel format*

Extracting Data from Forms

Data in form reports is usually located on a specific line and at a specific character position on each page of the report. This type of report looks like a computerized version of an insurance form; there is a line or block for your last name, first name, previous doctor, insurance company, policy number and so on. This type of report may not have any data in columns, which makes it difficult to format records for a database.

DataImport provides a function to "read" these types of forms and put the data they contain into columnar format. This function is accomplished with a combination of Reference Point and Line Tag commands.

Reference Points and Line Tags offer a way to "point" to data in a form. In a sense, they allow you to give DataImport directions to the location of data in a form. As with any directions, DataImport needs landmarks to find its way and locate the correct data. Reference Points serve as these landmarks and Line Tags are "directions" from a Reference Point to a place where data is located.

For example, if an insurance form report like the Input File below has a field titled "LAST NAME" at the top of each page of a form report

followed by the last name, the last name information for each form can be extracted to a column.

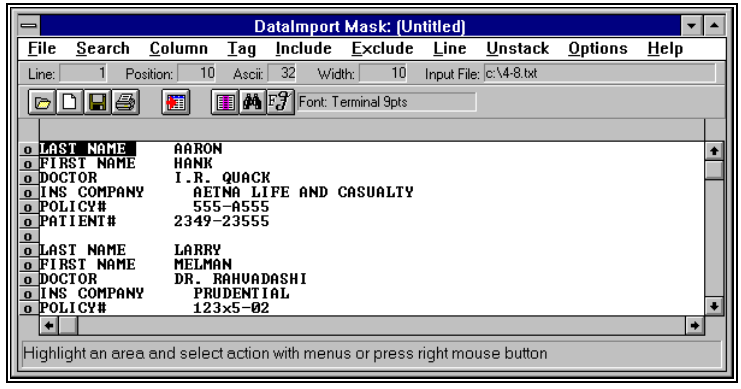

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 1 Position: 10 Ascii: 32 Width: 10 Input File: c:\4-8.txt
Font: Terminal 9pts
LAST NAME AARON
FIRST NAME HANK
DOCTOR I.R. QUACK
INS COMPANY AETNA LIFE AND CASUALTY
POLICY# 555-A555
PATIENT# 2349-23555
LAST NAME LARRY
FIRST NAME MELMAN
DOCTOR DR. RAHUADASHI
INS COMPANY PRUDENTIAL
POLICY# 123x5-02
Highlight an area and select action with menus or press right mouse button

Figure 4-10 *Form type report*

By defining the text “LAST NAME” as a Reference Point and the last name of the patient as a Line Tag, the program will output the last name of the patient into a cell on each row that it outputs. When DataImport encounters another occurrence of the Reference Point “LAST NAME” it will update its current tag information and continue to tag each data line with the new information.

Let’s say that you have a form-type report like the one pictured above and you want to put this information in a spreadsheet where you have a Last Name column, a First Name Column and a Patient # column. DataImport will allow you to put this information into columnar format.

To output each patient as a row of a spreadsheet, change to Global Skip Line Mode, define a column that will capture the last piece of data on each form (Patient #) and then define an Include Line to extract the last line of data for each patient. Then use Reference Points and Line Tags to capture the rest of the data for the patient. Define a Reference Point at the beginning of each patient and then define what data to extract with the **Tag Line-Tag Define** command.

In the following example, the default line treatment was set to Global Skip Lines. Then, to capture the last unit of data on each form, a column was defined to capture the Patient # and then an Include Line was defined with a match string of “PATIENT #” to create a single data line for each form. Notice the “I” in the Line Control Bar to the left of “Patient #.”

A Reference Point and two line tags were then added to extract the Last Name and First Name of the patients to separate columns. The Reference Point was created using the match string “LAST NAME” and two Line Tags were created: one with the selection “AARON “ and one with the section “HANK ”. These selections were made larger than the name in order to capture longer names that may appear on the forms. The resulting mask is shown below:

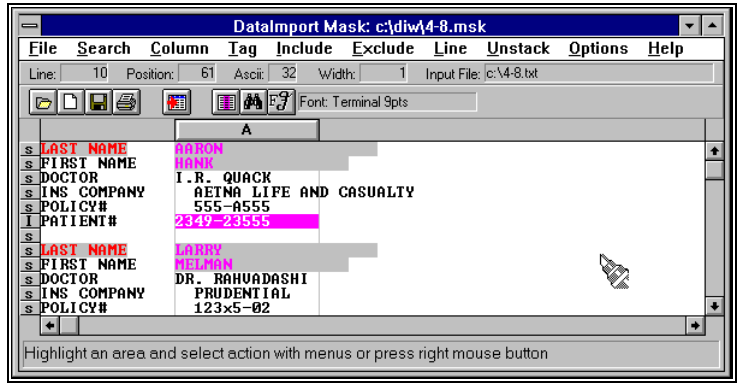

DataImport Mask: c:\diw\4-8.msk
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 10 Position: 61 Ascii: 32 Width: 1 Input File: c:\4-8.txt
Font: Terminal 9pts
A
s LAST NAME AARON
s FIRST NAME HANK
s DOCTOR I.R. QUACK
s INS COMPANY AETNA LIFE AND CASUALTY
s POLICY# 555-A555
I PATIENT# 2349-23555
s
s LAST NAME LARRY
s FIRST NAME MELMAN
s DOCTOR DR. RAHUADASHI
s INS COMPANY PRUDENTIAL
s POLICY# 123x5-02
Highlight an area and select action with menus or press right mouse button

Figure 4-11 *Mask for outputting form information to columns*

After translating, the output of this mask is shown below:

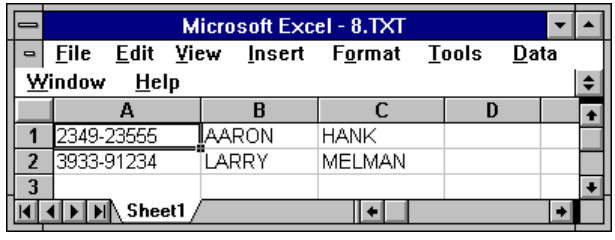


Figure 4-12 *Output from Mask pictured above.*

Line Tags are always included into any outputted data lines (Include or Value Lines) that occur *after* or on the same line as the Reference point, so it is important to define the Reference Point before or on the same line as the Included Line on the form.

Options that can be selected for a normally defined column can also be selected for a column defined by use of Line Tags. This includes selecting the Type, Column Letter, Name, and @Function. To set the properties for a Line Tag column, click inside the Line Tag you want to define and choose **Tag Line-Tag Define...** The Tag Settings dialog box will appear. Set the column definitions for the Tag as you would for a normal column and press OK to apply the new definitions.

Filling Blank Column Cells

Some Input Files do not repeat information in a column unless it changes. For example, in the sales report below, the column indicating the region in which the person works is included only for the first salesperson in each region.

```
(Col A)    (Col B)           (Col C)
Region     Salesperson       Units Sold
Southwest  John F.           10
           Joan K.           14
           Terri Y.          15
Northeast  Jim B.            16
           Jill S.           12
           Tim R.            14
```

Figure 4-13 *Report with blanks in column A*

To tell DataImport to fill all the blanks in the column with the most current information, select the **Column Blank Duplicate** option. In this example, click in column A, choose **Column Settings...** and under When Blank, mark the Fill-down option.

```
(Col A)    (Col B)           (Col C)
Region     Salesperson       Units Sold
Southwest  John F.           10
Southwest  Joan K.           14
Southwest  Terri Y.          15
Northeast  Jim B.            16
Northeast  Jill S.           12
Northeast  Tim R.            14
```

Figure 4-14 *Report output with Fill-down applied to column A*

Transpose Rows and Columns

Some reports may print data that should be in columns on a line or may print data in columns that should be on lines. For output used with a spreadsheet, DataImport can transpose columns and lines. That is, data displayed as columns in the Mask Screen will be output as lines, and vice versa.

To output rows as columns and columns as rows, choose **Options Global...**, mark the Transpose rows and columns option and press OK. The display will not change, but the data output to a spreadsheet file will be transposed.

If this option is selected, column widths defined in the mask are not used during translation. The Output File will be displayed using the spreadsheet program's default column width.

Recognizing Data Types and Formats

Data in computerized reports can come in many different styles. Depending on the person or system that produced the report, data formats for numbers, dates and times can vary widely. You may receive reports from the United States, Japan, Germany or Australia that use different date, currency and decimal formats. DataImport can recognize a wide variety of data types and formats—assuming it knows what to look for.

The way that DataImport recognizes data is the Type setting for the definition of the Column. Whenever you define a column, DataImport defaults to the column type specified in the Preferences. You can change this definition for a specific column by clicking in the column, selecting **Column Settings...** and choosing an option from the Type pull-down menu.

There are several data types you can define in DataImport. These are discussed below.

Numeric

When you define a column with this type, the program will attempt to treat all the data in a cell of this type as numeric values. If DataImport cannot translate the cells as numeric values, it will translate them as text. Data that will be translated as numbers is displayed in a blue color.

DataImport understands how numbers are represented on reports and translates them correctly into the Output File. It also understands that negative numbers can be represented several ways, either with a minus sign before or after the number, with parentheses, or with a CR or DR next to the number (credits and debits).

DataImport understands that a percent sign (%) indicates the number should be divided by 100. It even handles subtotals that are marked with asterisks. DataImport can also translate numbers that are expressed in scientific notation.

Computer systems in the U.S. use the dollar sign ($) to express currency, a period (.) to indicate the decimal point, and a comma (,) as the thousands separator. DataImport uses these settings as defaults but it can be instructed to use other symbols for recognizing currency, thousands and decimals, as explained below.

Currency DataImport can recognize any currency format. By default the currency setting is set to US dollars ($). The following are some of the pre-set symbols that can be recognized as currency symbols:

Symbol	(currency name)
$	(dollar)
¢	(centavo)
£	(pound)
¥	(yen)
A$	(Australian dollar)
C$	(Canadian dollar)
Dkr	(Danish Krone)
DM	(German mark)
Fr.	(French Franc)
Gld	(Guilder)
L	(Lira)
NKr	(Norwegian Krone)
p	(peseta)

SFr (Swiss Franc)
SKr (Swedish Krona)

To select the current currency symbol, choose **Options International...** and under Number Format, either choose the currency symbol from the Currency pull-down menu or type in the currency symbol.

Thousands Notation The symbol for separating thousands in the U.S. is the comma; also used in other countries are the period and the space. DataImport supports all three of these notations.

To select the thousands symbol, choose **Options International...** and under Number Format, choose the thousands notation symbol from the Thousands pull-down menu.

Decimal Points The symbol for separating the fractional or decimal part of a number from the integer portion of a number can be defined as either the period or the comma.

To select the current decimal symbol, choose **Options International...** and in the Number Format field choose the decimal symbol from the Decimal pull-down menu.

Text

This type instructs DataImport to translate the cells in the columns as the same characters that are in the Input File. When another column type, such as numeric or date, are selected and DataImport cannot translate that data into the requested type, DataImport will output the data as text. Data that will be translated as text is displayed in a magenta color.

There are three kinds of Text selections.

Character/Label text instructs DataImport to translate the data in the column as text characters. This is the most commonly used text type.

Left Justified text instructs DataImport to remove spaces from the beginning of text.

Block Text instructs DataImport to keep adding data from multiple lines within a column into the same cell (or field) during translation until the next line is to be output or a blank cell in the column is encountered. You can also specify the Block to be a fixed number of lines.

Case There are four case settings, three of which affect the capitalization of text when they are output. The following table illustrates the effects of these options on sample text:

Case Setting	Input	Output
(As-Is)	Miami	Miami
(Lowercase)	Miami	miami
(Uppercase)	Miami	MIAMI
(Proper)	MIAMI	Miami

Figure 4-15 *Case Settings and their effects*

Date

This type instructs DataImport to translate the cells in the column as dates. In spreadsheets, the date is the number of days since January 1, 1900. The format of the date must be specified. Eight formats are supported. All of the date types except for Custom require a blank space or a separator character such as a "/" or "-" between the month, day, and year parts. The custom date is used when there are no separators or blank spaces. If the program cannot translate the cells as dates, it will attempt to translate them as numeric values, then as text. Data that will be translated as dates is displayed in a green color.

Date Custom The custom format is used to recognize dates that do not contain separators and is applied when you specify the Date (Custom) setting for a column.

To define the custom date format, choose **Options Dates...** and in the Custom Date Format enter the custom date. Type in the format string using the letters D, M and Y as positional indicators for the day, month and year. The table below shows some examples of custom date formats and how they interpret dates without separators.

Type this:	To recognize this:	As this:
YYMMDD	961231	December 31, 1996
MMYYDD	129631	December 31, 1996
DDMMYY	311296	December 31, 1996
YYYYMMDD	19961231	December 31, 1996

Figure 4-16 *Custom date examples and results. These results assume that two-digit year interpretation is set to 96 or less.*

Two Digit Years For dates that contain two digits for the year, the cutoff date that divides 19xx from 20xx can be defined. In some files, the date 11/25/55 could mean 1955 or 2055. To define the two digit year that is the cutoff between 19xx and 20xx, choose **Options Dates...** and in the Year for 19XX field type the cutoff date for interpreting two-digit years.

Month Names DataImport recognizes the standard U.S. spellings of the names of the months, but it can also be instructed to recognize different spellings, such as the German spelling of October: “Oktober”. To specify the spellings of the month names, choose **Options International...** and in the Month Name field type in the month spellings you want DataImport to recognize. To save your custom Month spelling definitions for use in future masks, press the Save as defaults button. If you want to use these saved month spellings at a later date, simply choose **Options International...** and press the Load defaults button.

Time of Day

This type instructs DataImport to translate the cells in the column as the time of day. The time is translated to a decimal number between 0 and 1. 0 indicates midnight, and 0.5 indicates noon. Spreadsheets will show this number as a time. If the program cannot translate the cells as times, it will attempt to translate them as numeric values, then as text. Data that will be translated as the time of day is displayed in a yellow color.

Name Parse

This type instructs DataImport to translate the data in the cells of the column as names, which are split into separate text columns (or fields) during translation. Names can be parsed into prefix, first, middle, last and suffix, i.e. Mr./John/Van Kamp/Jr. Data that will be translated as Name Parse is displayed in a magenta color.

Name Parse uses a DEFAULT.DIC file to scan for all included prefixes, suffixes and beginning of last names. You can edit this file or create your own dictionary. See Appendix H: Customizing the Dictionary File for more information.

Address Parse

This type instructs DataImport to translate parts of an address. Addresses can be parsed into City, State, and Zip/Postal code, i.e. Atlanta/Georgia/30301. This data type can also be customized, and one or all of the address elements can be selected. Address Parse uses a DEFAULT.DIC file to scan for all state abbreviations. You can edit this file or create your own dictionary. See Appendix H: Customizing the Dictionary File for more information.

Signed Overpunch Numbers

Some computer systems use special notation to indicate positive and negative numbers. By assigning special characters to either the first or last digit of a number, a program can indicate whether a number is positive or negative. This helps conserve file space; rather than outputting the minus sign, it is "coded" into the number as a signed overpunch technique.

To specify the characters used to indicate the sign of the number, choose **Options Signed Overpunch...** DataImport provides three options for designating the characters that are used to indicate that a number is positive or negative:

0-9, }-R 0 → 9 as positive, } → R as negative

{-I, }-R { → I as positive, } → R as negative

Custom (user-defined)

One of the first two options translates the majority of Input Files using signed overpunch correctly. Selecting the Custom option displays all 20

possible digits and the current character assignment. To create a custom format, choose the Custom option under Character Set and then in the Characters field, change the characters to match those used in the Input File. To save your custom Signed Overpunch definitions as the default for all new masks, press the Save as defaults button. If you want to use this saved character set at later date, simply choose **Options Signed Overpunch...** and press the Load defaults button. The custom character set will also be saved when you save the Mask.

DataImport can use either the leading (first position) or trailing (last position) digit of a number as the signed overpunch. To check or change the setting, choose **Options Signed Overpunch...** and mark either the Trailing or Leading options in the Position field.

Code Page Settings

ASCII stands for American Standard Code for Information Interchange. It is a specification that determines how bytes that are numbers are converted to characters. The ASCII specification specifies characters 0 through 127. The characters are control codes, numbers (0-9), lowercase letters (a-z), uppercase letters (A-Z), and punctuation common to the English language. Character Numbers 128 through 255 are not defined.

When IBM and Microsoft developed MS/PC-DOS for the IBM PC they developed extensions to the standard ASCII characters that define characters numbered from 128 to 255. The Extended ASCII character set contains line-drawing characters, symbols, and a small set of punctuated letters used in non-English languages. Punctuated letters are those that are made up of a letter and a diacritical mark, for example, á, Ç, ú, Ü, and Ä.

In version 3.3, IBM and Microsoft added National Language Support to DOS because the original Extended ASCII character set did not contain all the punctuated letters that would be necessary to support other languages. They developed a series of Code Pages to support the other languages. Code Pages are essentially a specification of what character to display for a given byte. All Code Pages share the first 128 characters (the original ASCII specification), but have different characters for the range of 128-255. Most of the Code Pages kept the same line-drawing characters. You can look in the back of your MS-DOS User's Guide to see the characters that are defined in each Code Page. The Code Pages are:
437 - US (Extended ASCII)
850 - Multi-Lingual (Latin 1)
860 - Portugal
863 - Canadian-French
865 - Nordic
Microsoft Windows does not use Code Pages, instead it uses fonts. Most fonts use the ANSI character set, which is not the same as any of the previous DOS Code Pages. The ANSI character set uses the ASCII codes for the first 128 characters. The last 128 characters contain symbols and a full set of punctuated letters, both uppercase and lowercase. Courier and

FixedSys are examples of fonts that use the ANSI character set. The Terminal font supplied with most versions of Windows does not use the ANSI character set, it uses the Code Page 437 character set.

To assist in reading files created on systems using a different Code Page than the standard US (Code Page 437), you can set what Code Page rules will work correctly. Also the Code Page defines how translation to Lotus products will be conducted. Lotus products use either the Lotus International Character Set (LICS) or Lotus Multi-Byte Character Set (LMBCS). With the Code Page set correctly in the mask, DataImport will do the necessary code Page translations to ensure that the output file has the correct characters.

Performing Calculations

Depending on the type of analysis or report you are creating, you may need to perform calculations on the data you extract from a report. DataImport provides functions to automatically output rows with Sum, Average or Count formulas.

DataImport can include formulas only in spreadsheet Output File types. Formulas are output as rows that can replace existing rows in the Input File, or they can be output as additional rows. These *Formula Rows* can be output either when the information in a specific column changes, or when a specific character match string is found.

Formulas in Columns

In order to properly insert Formulas in a spreadsheet, DataImport needs to know what type of calculation should be performed for each column. You define the type of calculation you want in the settings of a column.

To define the type of calculation to perform on a column, click in the column, choose **Column Settings...** and choose a formula type from the @Function pull-down menu.

Inserting Formula Rows

After you have defined the formulas you want in each column, you must then specify when DataImport should output a Formula Row. A *Formula Row* is a row DataImport inserts in an Output file which contains formula cells that calculate a Sum, Average or Count of the cells above.

Formula Rows can be inserted when the data in one column changes or when a match string is found. DataImport can also replace a line in the Input File with a Formula row.

Inserting Formulas at a Column Change

You may want to insert a Formula Row every time the data in a particular column changes. DataImport allows you to insert a Formula Row into the Output File each time the character contents of a non-blank cell in a

specified column changes. This option is useful when the Input File is a list of records in a sorted order without subtotals.

For example, lets say you have a report that lists all of the data from the Southwestern region on consecutive lines and the first column (A) lists SOUTHWEST for each entry. The first column then changes to NORTHWEST and lists all the data from the Northwest region. You want to get the totals for each region—SOUTHWEST, NORTHWEST, etc.—so you need to insert a Formula Row each time the name in the first column changes.

To insert a Formula Row based on a change in the column, choose **Options Formula Rows Column Change...**, type in the Column Letter—in this case, "A"—and press OK. DataImport will now insert a formula each time the data changes in the column you specified (in the example above, when SOUTHWEST changes to NORTHWEST and when NORTHWEST ends or changes to something else).

The column to be tested for a change in contents can be a normally defined column or a Line Tag column. A dashed line is output before, and a blank line is output after, the formula line. This formatting makes it easy to determine where DataImport has inserted formulas.

Inserting Formula Rows with Match Strings

DataImport allows you to output a Formula Row each time a specified match string is encountered during translation. The match string can be defined to require an exact match, or a pattern match using wildcard characters.

This option is useful when a report has groups of information without subtotals that is either on different pages, or is separated by headings. DataImport can be instructed to insert formula cells in rows before each new page or heading.

To insert a Formula Row based on a match string, select the text to be used as a match string and choose **Options Formula Rows Insert on Match...** If the match string is always the same character sequence, press OK. To define a pattern of characters, edit the Original String by including the appropriate wildcard characters. If the string must occur at the same line position as the original string, then in the Position on line field, mark the At Position option, otherwise, choose Anywhere.

Replacing Lines with Formula Rows

A Formula Row can replace the cell contents of an Input File line each time a specified match string on the line is encountered during translation. The match string can be defined to require an exact match, or allow for a pattern match using wildcard characters.

Many reports already contain totals. The **Options Formula Rows Replace on Match...** command can be used to replace the literal totals in an Input File with the formulas for the totals. This change can facilitate "what if" analysis in spreadsheets by showing the new total after a change is made to a detail line.

To replace a line with a Formula Row based on a match string, select the text to be used as a match string and choose **Options Formula Rows Replace on Match...** If the match string is the exact same character sequence occurring at the same line position, press OK. To define a pattern of characters, edit the Original String by including the appropriate wildcard characters. If the string must occur at the same line position as the original string, then in the Position on line field, mark the At Position option, otherwise, choose Anywhere.

Working with Database Files

Relationship Between Columns and Fields

A field serves much the same function in a database that a column does in DataImport. The information in a defined column will be sent to the corresponding field in the database file. For example, data in column A will go to the first field, column B's data will go to the second, etc.

Assigning Columns to Database Fields

When creating a new database or mail merge Output File, the DataImport column names are used as the field names. The column names initially default to be the column letters. The column names can be changed by clicking the mouse button anywhere in the column, selecting the **Column Settings...** command and typing a new name in the Field Name field.

After the column name is entered, the column indicator bar above the Input File display window will include the column letter and the column name. For example, if column B is named "CITY", the column indicator bar will display "B:CITY" above the column.

If the output database already exists, then you can only select from the available field names in the existing output file. This feature prevents existing database files from being corrupted with conflicting fields and data. To create a database with a new structure, choose **File Define Output File...** type in a different name for the new database and press OK, or delete the existing database file.

Displaying the Database Structure

DataImport offers two ways of displaying the structure of an existing database file. Both methods show field name, length, type, and the column letter that corresponds to the field in the mask.

When outputting to an existing database file in the Mask application, you can display the database structure of the existing file by choosing the **File Show Database Fields...** command. A dialog box will appear showing the current field names, field types, field lengths and their relationship to the existing column definitions:

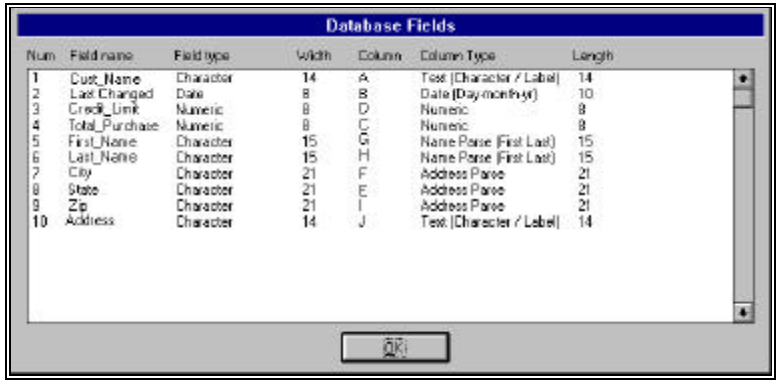

Database Fields
Num Field name Field type Width Column Column Type Length
1 Cust_Name Character 14 A Text (Character / Label) 14
2 Last Changed Date 8 B Date (Day-month-yy) 10
3 Credit_Limit Numeric 8 D Numeric 8
4 Total_Purchase Numeric 8 C Numeric 8
5 First_Name Character 15 G Name Parse (First Last) 15
6 Last_Name Character 15 H Name Parse (First Last) 15
7 City Character 21 F Address Parse 21
8 State Character 21 E Address Parse 21
9 Zip Character 21 I Address Parse 21
10 Address Character 14 J Text (Character / Label) 14
OK

Figure 4-17 *Database structure displayed with the* ***File Show Database Fields...*** *command in the Mask application.*

The DataImport Utilities application can also extract the structure of a dBase format database file from the header information. To output the structure of the database to a file, use the dBase header function.

Specifying Table Names Access (MDB) format databases use Tables within files. You can specify an existing table from a file or specify a table name. If no table name is specified, DataImport will use "Table1". To control the table name for an Access Output File, choose **File Define Output File...**, make sure a Microsoft Access output type is defined and specify a table name in the Table Name field.

Translating to an Existing Database

Caution: Except for Microsoft Access, any indexes associated with an existing database must be regenerated following output to the file. DataImport does not update indexes when it performs a database translation. DataImport does update Access indices.

DataImport retains all characteristics of a database structure during a translation and only outputs information that is associated with a field. If more columns have been defined than existing fields in the database, then the information in the columns not associated with fields is not output. If fewer columns have been defined than fields in the database, some fields will remain blank.

DataImport never changes the structure of an existing database, even if the Replace option is specified.

When instructed to perform a translation into a database file, DataImport verifies that the Output File exists. If the file exists, you can specify that DataImport either append to the file by keeping the current records and adding new records, or completely replace the records already in the file.

You can set DataImport to automatically Append or Replace by choosing **File Define Output File...** and selecting one of these options from the Action when output exists menu.

Translating to a New Database

If a database file does not exist when a file is translated to a database Output File type, then DataImport creates the database structure by setting the field names, field length and field type according to the current definitions in the mask.

The default database field names written into the new database structure are the Mask's column letters (i.e., A, B, C, D,...). You can specify the Field Name of a column (data fields) as any valid field name (i.e., NAME, ADDRESS, etc.) by clicking in a column, choosing **Column Settings...** and typing in a field name in the Field Name text field.

IMPORTANT!: If you are using DataImport to create the structure of the database and you redefine the mask to include more or fewer columns, change a field type or column width after translating, delete the database file and associated structure created by DataImport before proceeding. If you do not delete the first database, the structure will remain intact and DataImport will not alter the structure even if you change the mask. Alternately, you can change the name of the output file to a new name.

Creating Records from Report Files

Some reports contain information in a heading at the top of the page that needs to be included on each line. Columns containing this heading information can be added to each line using the Mask application's Line Tag feature.

Some reports leave the column blank if it contains the same information as the preceding line. Information from previous lines can be automatically copied into the blank cells on each line in a column by choosing **Column Settings...** and marking the Fill-down option for each column.

Chapter 5: DataImport Mask Reference

This section details the commands and options for the DataImport Mask.

DataImport Mask

This section of the User Reference describes operations performed using the menu commands in the Mask application. The Mask window displays the Input File, defines masks and translates data.

File

File

- ÃÄ Load Input File...
- ÃÄ Close Input File
- ÃÄ Input File Statistics
- ÃÄ Print Input File

- ÃÄ New Mask
- ÃÄ Open Mask...
- ÃÄ Save Mask
- ÃÄ Save Mask As...
- ÃÄ Summary Info...
- ÃÄ Print Mask Settings...

- ÃÄ Define Output File...
- ÃÄ Translate...
- ÃÄ Show Database Fields...

- ÀÄ Exit

File Load Input File...

Selects and then loads an input file to be translated.

By default the first 1,000 lines of the input file are loaded into the Mask window. The number of lines to be loaded (up to 16,384) is specified by selecting Preferences from the Options menu. The fewer lines loaded the faster the Mask window is updated.

Procedure:

1. From the **File** menu, choose **Load Input File...**
2. Choose a file from the File Name list box or type the name of the file to be loaded including the full path under File Name.
3. Press OK to load the file.

After an input file is chosen, it is displayed in the Mask window. Usually, the file search is set to the default working directory or the last directory that was searched. Drive specifications must end with a colon (:), and directory specifications with a backslash (\).

File Close Input File

Closes the input file and removes it from the Mask screen.

Procedure:

1. From the **File** menu, choose **Close Input File**.

File Input File Statistics

Displays information about the currently loaded input file.

Procedure:

1. From the **File** menu, choose **Input File Statistics**.

A pop-up window appears with the number of bytes, number of lines and the maximum character line width of the file.

File Print Input File

Prints the currently loaded input file.

Procedure:

1. From the **File** menu, choose **Print Input File**.

File New Mask

Clears memory of all mask columns, line treatments, settings and options.

Procedure:

1. From the **File** menu, choose **New Mask**.

A pop-up window appears as the program initializes a new mask, the previously loaded mask is removed and a new mask becomes active.

File New Mask deletes the current mask from memory and restores all mask selections to the default settings. It does not delete or change any Mask Files saved on disk.

File Open Mask

Loads a previously saved Mask File onto the current Input File.

Procedure:

1. From the **File** menu, choose **Open Mask**.
2. Choose a mask file from the File Name list box or type the name of the file to be loaded including the full path under File Name.
3. Press OK to load the file.

File Save Mask

Saves the current mask in memory to a Mask File.

Procedure:

1. From the **File** menu, choose **Save Mask**.

The Mask File is saved in the current mask directory. If the current mask has not been saved previously, you will be prompted to name the Mask File and choose a directory.

File Save Mask As...

Saves the current mask to a Mask File with a new name and/or directory location.

Procedure:

1. From the **File** menu, choose **Save Mask As...**.
2. Type the mask file name, choose a directory for the file and press OK to save the file.

File Save Mask As... is used when saving a Mask File for the first time, when naming a new version of an existing mask or for saving the current mask to a different directory. It also prompts the user for a description and an author. An extension of .MSK is automatically added to the Mask File name if no extension is provided.

File Summary Info

Displays a brief description and the author of the current mask and allows changing this information.

Procedure:

1. From the **File** menu, choose **File Summary Info**.

File Print Mask Settings...

If your Mask is not selecting the information that you expected, try printing the mask settings and reviewing the listing.

Lists settings defined in the current mask on screen and/or on a printer.

Procedure:

1. From the **Files** menu, choose **Print Mask Settings...**.
2. The current mask settings will be listed on screen. Press Print to output the settings on the current printer or press Cancel to return to the Mask application.

This option is very useful, particularly when the mask contains a lot of Include Lines, Exclude Lines and other settings. The report lists all settings, file names and column definitions.

File Define Output File...

If your output file type is a database like Access, dBase or Paradox, please be sure to read the section titled ***Working with Database Files*** *on page 70.*

Selects a name and file format for an output file

Procedure:

1. From the File menu, choose Define Output File....
2. Type a path and file name for the Output File name or press the [...] button at the end of the field to select a name and directory location.
3. Select an Output File Type.
4. Select an option from the Action when output exists menu.
5. Press OK to accept the current output settings.

The Action when output exists option controls the procedure for saving output to a file that exists. The default is Warning, which allows the user to decide each time a file is translated.

For more information about output formats, see the Input and Output section in Chapter 4: Fitting DataImport to Your Needs.

File Translate...

Translates the input file using the current mask and output settings.

Procedure:

1. From the **File** menu, choose **Translate...**
2. The Translation Parameters window appears with the current output settings. Press Translate to begin the translation or press Settings to change the output parameters.

File Translate is usually used at the conclusion of a masking session to generate output for a spreadsheet or database.

File Show Database Fields...

Displays the database record structure along with a comparison to the columns in DataImport.

Procedure:

1. From the **Files** menu, choose **Show Database Fields...**
2. The Database Fields window appears with field information. Press OK to return to the Mask screen.

This option is available only when the type of translation is a database and the Output File exists. **File Show Database Fields...** displays information about the existing output database file that can help match fields in the records with the proper columns in DataImport. The example below illustrates how the database record structure is displayed.

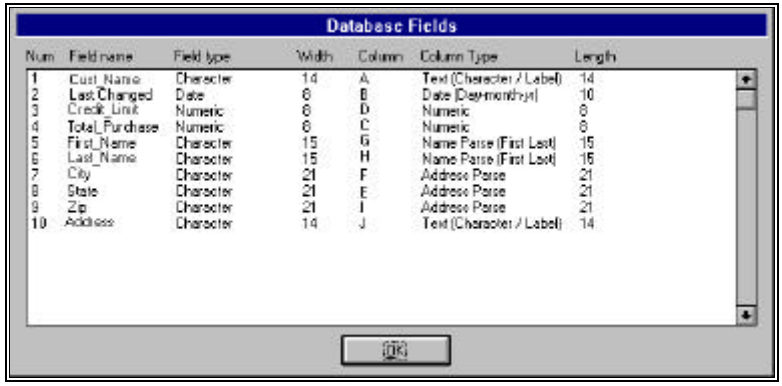

Database Fields
Num Field name Field type Width Column Column Type Length
1 Cust_Name Character 14 A Text (Character / Label) 14
2 Last Changed Date 8 B Date (Day-month-yr) 10
3 Credit_Limit Numeric 8 D Numeric 8
4 Total_Purchase Numeric 8 C Numeric 8
5 First_Name Character 15 G Name Parse (First Last) 15
6 Last_Name Character 15 H Name Parse (First Last) 15
7 City Character 21 F Address Parse 21
8 State Character 21 E Address Parse 21
9 Zip Character 21 I Address Parse 21
10 Address Character 14 J Text (Character / Label) 14
OK

Figure 5-1 *View of database structure.*

The number in the first column indicates the sequence of the fields in the output file. The first field in the database is column A, the second field is column B, etc. Change the sequence of fields by changing the lettering of existing columns.

Field Name lists the names of the fields in the existing database. Field names in an existing database file cannot be changed.

Field Type indicates the type of data contained in the field in the existing database. Field types in an existing database file cannot be changed.

Width indicates the field widths in the existing database.

Column lists the letter setting for each column in the mask.

Column Type shows the data format setting for the column in the mask. Column types should be set to match the existing database field type. Edit this setting by selecting the Type option with the **Column Settings** menu option.

Length indicates the current width of the column defined in the Mask. This is not the output width.

If the output file already exists, order the columns by changing the column letters. Remember that columns in a mask can be skipped and do not need to be in sequence. The column width defined in DataImport is not used. The output width is the same as the database's field length.

File Exit

Closes current mask, input file and the application.

Procedure:

1. From the **File** menu, choose **Exit**.

If the current mask has not been saved, the application will ask if you want to save it. You do not need to restart the mask application to create a new mask; use **File New Mask** to initialize a mask with default settings.

Search

Search
³
ÃÄ Find Text...
ÃÄ Find Control Codes
³
ÃÄ Find Next
ÃÄ Find Previous
ÃÄ Find First
ÃÄ Find Last
³
ÃÄ Go Top
ÀÄ Go Bottom

Search Find Text...

Searches for a specified text string within the current input file.

Procedure:

1. From the **Search** menu, choose **Find Text...**
2. Type the text string to search for under Find.
3. If you want the search to be case sensitive make sure the Case Sensitive Search option is marked.
4. Press OK to begin the search.

The **Find Text...** command is useful for locating specific text within a large input file. The search will find the specified text as a single word or within a word. For example, a search for “on” will find “on”, “iron” and “control.”

Search Find Control Codes

Searches for a control code within the current input file.

Procedure:

1. From the Search menu, choose **Find Control Codes**.

The Find Control Codes command locates any characters that have an ASCII value less than 32. These codes are typically used to control printer functions. If the Input File you have loaded contains a high percentage of control codes (25% or more), the file is probably not in ASCII format. For more information about supported input formats, see Input and Output in Chapter 4: Fitting DataImport to your Needs.

To find a series of control codes, use the Find Next command to proceed through a number of these codes. Exclude the display and translation of these characters by using the **Exclude Characters All Special Characters** command. To exclude a specific control code, highlight the character and use the **Exclude Characters Define...** command.

Search Find Next

Searches for next instance of current Find match string.

Procedure:

1. From the Search menu, choose **Find Next**.

This command is useful for locating multiple instances of a text string in a large input file. The shortcut key for this command is <F3>.

Search Find Previous

Searches for previous instance of the Find match string.

Procedure:

1. From the Search menu, choose **Previous**.

This command uses the currently defined criteria for the search. Change text search parameters using the **Search Find Text...** command.

Search Find First

Searches for instance of the **Find** match string closest to the beginning of the Input File.

Procedure:

1. From the **Search** menu, choose **Find First**.

This command uses the currently defined criteria for the search. Change text search parameters using the **Search Find Text...** command.

Search Find Last

Searches for instance of **Find** match string closest to the end of the Input File.

Procedure:

1. From the **Search** menu, choose **Find Last**.

This command uses the currently defined criteria for the search. Change text search parameters using the **Search Find Text...** command.

Search Go Top

Searches for the beginning of the input file.

Procedure:

1. From the **Search** menu, choose **Go Top**.

Search Go Bottom

Searches for the end of the input file.

Procedure:

1. From the **Search** menu, choose **Go Bottom**.

Column

Column
ÃÄ Define...
ÃÄ Settings...
ÃÄ Undo
ÃÄ Undo All
ÃÄ Auto Define All
ÀÄ Push/Pull...

Column Define...

Defines a new column based on the currently highlighted or selected character positions

Procedure:

1. Highlight a horizontal range of character positions to be included in the column.
2. From the **Column** menu, choose **Define...**
3. The Column Settings dialog box appears. From the Type option menu, choose a data type.

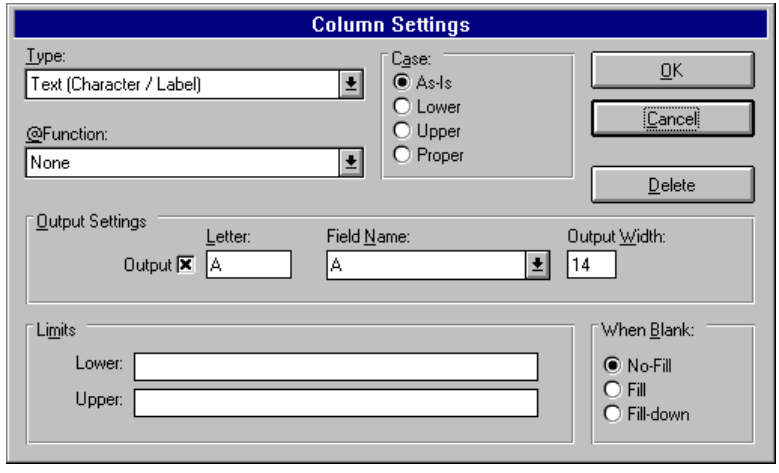


Figure 5-2 *Column Settings Dialog Box*

Note that each column type has different configurable options. These are explained below.

4. If the file is to be output to an existing database, map it to the proper field from the Field Name option menu. If the database does not yet exist, type in the Name of the field to be associated with this column. For other output file types, an optional column name can be entered.
5. Press OK to finish defining the column.

This command defines the left and right boundaries of a column. Columns cannot overlap. Each line of text within the defined column is extracted to the same column in a spreadsheet, or the same field in all records of a database.

After a column is defined, you can change the parameters controlling the translation of the column by pressing the column control button at the top of the column. The Column Settings dialog box appears.

Type indicates the kind and/or format of data to be extracted. When a column is initially defined, the column's type defaults to the column type specified in the **Preferences** menu.

Numeric attempts to format data as numbers. In addition to numeric digits, it also recognizes symbols used to format numbers, such as decimal points, thousands separators, currency symbols, and negative indicators. To change these symbols, select **Options International...** and choose the appropriate symbols. If non-numeric data is encountered in the cell, DataImport formats the data as Text.

Text (Character/Label) formats the data as alphanumeric text.

Text Left Justified is the same as Text Character/Label except that it removes blank spaces from the left of the text.

Text Block formats multiple lines of data into the same cell. Text Block keeps adding data from multiple lines within the same column into the same cell (or field) during translation until the next line is to be output or a blank cell in the column is encountered. You can also specify the Block to be a specified number of lines.

Date (Month-day-yr) attempts to recognize data as a date that is printed in month day year order with separators into the date format of spreadsheets and databases. Date settings can be modified under **Options International** and **Options Dates**. DataImport will attempt to format this data as dates first, then text.

Date (Day-month-yr) Similar to Date Month-day-yr.

Date (Yr-month-day) Similar to Date Month-day-yr.

Date (Month-yr) Similar to Date Month-day-yr.

Date (Yr-month) Similar to Date Month-day-yr.

Date (Yr-day) Similar to Date Month-day-yr.

Date (Day-yr) Similar to Date Month-day-yr.

Date Custom will format data as a custom date defined by the user in the **Options Dates** dialog box as a format without separators.

Time attempts to format data as time, then numeric, and text last.

Signed Overpunch attempts to recognize data in the input file that is signed overpunch and translate the data as numeric. The signed overpunch strings are determined by **Options Signed Overpunch**.

Name Parse (Last, First) attempts to recognize the individual parts of a name that consists of a last name followed by a comma and the

remaining parts of the name. During translation it outputs the data into separate columns for the Prefix, Last Name, Middle Name, First Name, and Suffix. You can have one, several, or all of these fields defined as separate columns.

Name Parse (First Last) attempts to recognize the parts of the name in their natural order, such as a name would appear in an address. It outputs the data into separate columns as described above.

Address Parse outputs data into separate columns for the City, State, and Zip/Postal Code.

User Definable settings within the Column Define dialog box

Many of the above mentioned column types have their own set of definable settings. These are listed below.

Case determines how text data will be capitalized. There are four options; As-is, Lower, Upper, and Proper (which capitalizes the first encountered character and the first character after each blank space).

Implied Decimals is a specified number of decimal places that can be applied to numeric data in the input file. For example the number 34596 with Implied Decimals set to 2 would be translated as 345.96. If the number already has a decimal point, it is not changed.

Letter indicates the sequence in which the columns will be output, regardless of their actual position in the Input File. Data can be output to any column in a spreadsheet. Columns can be skipped. The column's sequence defaults to the order in which they are defined or selected. For example, if a new column is defined between existing column A and existing column B, it will default to column C.

Name indicates the name of the database field to which the column will be output. If the output database file exists, an option menu lists the field names in the existing database. If the database does not exist, the user can type in the name of the new field or let it default to the letter of the column. A name can also be specified when outputting to other file types.

Output Width determines the character width of the translated column in the output file.

When Blank controls how DataImport deals with blank cells or records in existing files.

No-Fill does not write anything into the cell.
Fill writes blank data into the cell.
Fill-down writes the same data from the last filled cell above it.

Some reports do not duplicate information from line to line if the information stays the same. Only the first occurrence of the information is included; successive cells contain blanks until the contents change. The following is an example of this type of report:

```
     W E E K L Y   S A L E S   R E P O R T
CITY    SALES PERSON        CUSTOMER   AMOUNT
------- ------------------ ---------- -------
ATLANTA  JOHN DOE           18321      10,245
                            24356       6,322
         SAM JONES          17623      28,995
BOSTON   MARY SMITH         16590       2,056
                            08842      18,545
```

Figure 5-3 *Input File with blank cells*

If the columns including the city and salesperson are defined with a Fill-down option, the data will be translated with the following format:

```
     W E E K L Y   S A L E S   R E P O R T
CITY    SALES PERSON        CUSTOMER   AMOUNT
------- ------------------ ---------- -------
ATLANTA  JOHN DOE           18321      10,245
ATLANTA  JOHN DOE           24356       6,322
ATLANTA  SAM JONES          17623      28,995
BOSTON   MARY SMITH         16590       2,056
BOSTON   MARY SMITH         08842      18,545
```

Figure 5-4 *Output File with blank cells filled-down*

@Function defines the mathematical formula to be calculated with the column data. The inclusion of formulas is controlled with the **Options Formula Rows** commands.

Limit defines a range of data to be extracted. For example, a range of dates from March 15, 1991 to December 30, 1998 or a range of dollar amounts between 1 million and 10 million. Limit also works with labels by allowing you to select alphabetical ranges. For example, part numbers starting with DX to parts starting with DZ.

Column Settings...

Changes parameters of an existing column.

Procedure:

1. Click in the column to be redefined.
2. From the **Column** menu, choose **Define...**
3. Edit the options you want to change and press OK to apply the changes.

Column settings can also be changed by pressing the column control button at the top of the column or by double clicking in the column. The width of a column can be changed by dragging the left or right edge of a column control button.

Column Undo

Removes one column.

Procedure:

1. Click in the column to be deleted.
2. From the **Column** menu, choose **Undo**.

Use this command to remove misplaced or incorrect columns.

Column Undo All

Removes all defined columns.

Procedure:

1. From the **Column** menu, choose **Undo All**.

Use this command to clear all columns from a mask without removing other mask definitions. Use the **File New Mask** to remove all mask settings.

Column Auto Define All

Defines columns automatically based on the patterns found in the current line that the cursor is positioned on.

Procedure:

1. Click on the line to use as the sample pattern for defining columns.
2. From the **Column** menu, choose **Auto Define All**.

The Input File is re-displayed with the new column positions. All previously defined column positions are disregarded. New columns are defined for the entire length of the line used as the pattern.

DataImport can be set to automatically define columns when an Input File is loaded. Turn AutoColumn function on or off by choosing **Options Preferences...** and changing the Automatically define columns option.

To remove all column definitions, select the **Column Undo All** option. If needed, columns can be manually defined by selecting **Column Define...** option.

Column Push/Pull

Moves all columns to the right of the cursor a specified number of character positions in either horizontal direction.

Procedure:

1. From the **Column** menu, choose **Push/Pull**.
2. Select either the Push or Pull radio button.
3. Enter the number of character positions to push/pull.
4. Press OK to perform the push/pull.

Use this command to ‘push or pull’ some or all of the mask columns to the left or right.

Tag

Tag

```
3
ÃÄ Define Match String Reference Point...
ÃÄ Edit Match String Reference Points...
3
ÃÄ Top of Form Reference Point
ÃÄ Bottom of Form Reference Point
3
ÃÄ Line-Tag Define...
ÀÄ Undo Line-Tag
```

Tag Define Match String Reference Point...

Creates a Reference Point for Line Tags based on selected text.

Procedure

1. Highlight text on a line to be used as a Reference Point.
2. From the **Tag** menu, choose **Define Match String Reference Point...**
3. The Define Match String Reference Point dialog box appears. If necessary, type in any pattern match characters or change the selection text.
4. If the line tags associated with this reference point should only be output one time, then select the check box for clearing all associated line tags after outputting.
5. Press OK to create the Match String Reference Point.

Match String Reference Points are used in conjunction with Line Tags to extract information from forms and other reports where information is located at specific positions on each page. They are also used to output information from page headings to each detail line.

Reference Points serve as starting points which DataImport uses to find information that is located in relation to the Reference Point. For example, on a form that prints the text LAST NAME at a certain position on each page that is followed by a name such as JENKINS, the text LAST NAME would serve as the Reference Point.

During translation, the occurrence of a Reference Point causes the Line Tags associated with it to be refreshed. The Reference Point match string can be defined to require an exact match, or a pattern match using wildcard characters.

Reference Points are displayed as a red foreground on a gray background. Up to one hundred Reference Point match strings can be defined for a mask. Only one Reference Point is allowed on a line.

A Reference Point must be defined before any tags to be associated with it can be defined. When a Line Tag is defined, it is associated with the closest Reference Point occurring before the tag.

Edit Match String Reference Point...

Allows deleting existing Reference Points and editing of the match strings.

Procedure

1. From the **Tag** menu, choose **Edit Match String Reference Point...**
2. The Reference Points dialog box appears. Choose one of the defined Reference Points and press either Delete All, Delete Marked, or Edit.
3. Press OK to return to the Mask window.

Top of Form Reference Point

Creates a Reference Point at the top of each page. This is useful when your input file has one form per page.

Form Length Reference Point

Creates a Reference point every specified number of lines. This is useful when you have a set number of lines per form.

Tag Line-Tag Define...

Creates a Line Tag based on the current selection or changes an existing Line Tag's settings.

Define a New Line Tag

Procedure:

1. Highlight the text to be output as a Line Tag.
2. From the **Tag** menu, choose **Line-Tag Define...**
3. The Tag Settings dialog box appears. Set the type of data for the Line Tag column using the Type options menu.
4. Press OK to accept the Line Tag settings.

The window's title bar indicates which Reference Point is being used to locate the Tag.

At least one Reference Point must be defined before a line Tag can be defined. Line Tags can only be defined to appear on or after the line that contains the first occurrence of the Reference Point.

See **Column Define** on page 80 for explanation of the options in the tags setting dialog box.

The Line Tag function inserts a new column that duplicates information that appears at certain points in the Input File. Line Tags repeat the same information on each output line until an associated Reference Point is encountered, at which point the Line Tag information is updated. At each occurrence of a Reference Point, only the information for the Line Tags associated with that Reference Point is updated.

NOTE Line Tags are associated with the closest Reference Point occurring before the tag when it is defined. Therefore, a Reference Point should be defined with the **Tag Define Reference Point...** option, then the Line Tags associated with that Reference Point should be defined immediately afterwards. Do not define a new Reference Point until all Line Tags are defined for the current Reference Point.

Line Tags are displayed with a gray background and a foreground color that indicates the type of data defined, with blue for values, magenta for labels, green for dates and yellow for times. On a monochrome monitor, data defined as a tag is highlighted.

Edit an Existing Line Tag

When a Line Tag has been defined, you can redefine the Tag's settings:

Procedure:

1. Click in the existing Tag.
2. From the **Tag** menu, choose **Line-Tag Define...**
3. The Tag Settings dialog box appears. Reset the type of data or other options for the Line Tag column. See **Column Define** for more information about the option in this dialog box.
4. Press OK to accept the new Line Tag settings.

Include

Include

ÃÄ Lines
³ ÃÄDefine...
³ ÀÄEdit...
ÀÄ Resume
ÃÄDefine...
ÀÄUndo...

Include Lines Define...

Defines a specified number of lines to be included in the output file based on the occurrence of a specified character match string.

Procedure:

1. Highlight the match string to cause the line to be included in translation.
2. From the **Include** menu, choose **Lines** and then **Define...**
3. The Define Include Line dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.
4. In the Position on line field, choose At position or Anywhere.
5. In the Lines to Include field enter the number of lines to be output when the match string is encountered.
6. Press OK to apply the Include command.

Use this command to include specific data rows in an output file. For example, **Include Lines Define...** can be used to include all lines in a report that contain MIAMI. Wildcard search characters can be used to make the Inclusion definition more flexible.

The text string field under Original String defines what characters must be present on a line in order for a line to be included. Use the special pattern matching characters as wildcards for searches:

^ single numeric character (0–9)

! single non-numeric character (AaZz$%^&*” “)

~ any single character excluding a blank space (AaZz$%^&*””)

_ any single character or blank space (0–9,AaZz$%^&*””)

Position on line controls where the text string can occur on a line.

At position indicates the text string must occur at the same line position as the original text string.

Anywhere indicates the text string can occur at any position on a line.

Lines to include controls how many lines are included for each occurrence of the Include match string. For values greater than one, additional lines are included immediately below the line where the Include text string occurs.

The lines to be included are displayed with background colors indicating how the cells will be translated. The line containing the Include match string is displayed with an uppercase “I” in the left margin. All additional lines in the associated range are displayed with a lowercase “i” in the left margin.

Lines that are specifically set as Skip, as indicated by an uppercase “S” in the left margin, will not be included during translation. Output, Title and Heading Lines will be translated.

In Global Output Lines Mode, Include Lines have precedence over Exclude Lines. That is, if an Include match string occurs in an Exclude Lines’ range, the Include Lines will be translated. In Global Skip Lines Mode, Exclude Lines have precedence over Include Lines.

Include Lines are usually used with the Global Skip Lines Mode option to select lines that have common information. Therefore, Global Skip Lines Mode is automatically activated when the first include line is defined.

Include Lines Edit...

Removes specified Include Line definitions and allows editing of the match strings.

Procedure:

1. From the **Include** menu, choose **Lines** and then **Undo**.
2. The Include Line Strings dialog box appears. Select one of the Include Line operations from the list.
3. Select either Delete Marked or Delete All or Edit.
4. Press OK to return to the mask screen.

Include Resume Define...

Restarts translation of rows after a Pause command when a specified match string is encountered.

Procedure:

1. Highlight a text string that should restart row translation.
2. From the **Include** menu, choose **Resume** and then **Define...**
3. The Define Resume String dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.
4. In the Position on line field, choose At position or Anywhere.
5. Press OK to apply the Resume definition.

Use the Include Resume command in conjunction with **Exclude Pause Define...** to extract blocks of information that occur over an indeterminate number of lines. Use the **Include Line Define...** command to specify translation blocks with a fixed number of lines.

The text string field under Original String defines what characters must be present on a line in order for translation to be restarted. Use the special

pattern matching characters as wildcards for searches: See Appendix F: Match String Wildcard Characters for more information about pattern matching characters.

Position on line controls where the text string can occur on a line.

> ***At position*** indicates the text string must occur at the same line position as the original text string.
>
> ***Anywhere*** indicates the text string can occur at any position on a line.

Begin in Pause Mode controls whether or not the translation is assumed to be in pause at the beginning of a file. Marking this option essentially puts a Pause command at the beginning of the input file.

The Resume command restarts translation of rows of data after a Pause command has been defined in a previous row. Resume definitions are based on the occurrence of a text string in the Input File. For more information about the Pause command, see “Exclude Pause Define” on page 93.

Include Resume Undo...

Removes the current Resume definition.

Procedure:

1. From the **Include** menu, choose **Resume** and then **Undo**.

Use this command to remove a previously applied Resume definition.

Exclude

Exclude

ÃÄ Lines
³ ÃÄ Define...
³ ÀÄ Edit...
ÃÄ Characters
³ ÃÄ Define...
³ ÃÄ All Special Characters
³ ÃÄ Edit...
³ ÀÄ Undo All Special
ÃÄ Pause
³ ÃÄ Define...
³ ÀÄ Undo...
³
ÃÄ Blank Lines
ÃÄ Page Ejects
ÀÄ Duplicate Lines

Exclude Lines Define...

Defines a specified number of lines to be excluded in the output file based on the occurrence of a specified character match string.

Procedure:

1. Highlight the match string that will cause the line to be excluded from translation.
2. From the **Exclude** menu, choose **Lines** and then **Define**.
3. The Define Exclude Line dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.
4. In the Position on line field, choose At position or Anywhere.
5. In the Lines to Exclude field enter the number of lines to exclude when the match string is encountered.
6. Press OK to apply the Exclude command.

Use this command to exclude lines from translation. The Exclude Lines command uses a text string to define which lines are to be excluded from translation into the output file. Wildcard search characters can be used to make the Exclusion definition more flexible.

The lines to be excluded are displayed with a white background. The first line in an Exclude Line range is displayed with an uppercase “E” in the left margin. All additional lines in the range are displayed with a lowercase “e” in the left margin.

The text string field under Original String defines what characters must be present on a line in order for a line to be included. Use the special pattern matching characters as wildcards for searches. See Appendix F: Match String Wildcard Characters for more information about pattern matching characters.

Position on line controls where the text string can occur on a line.

At position indicates the text string must occur at the same line position as the original text string.

Anywhere indicates the text string can occur at any position on a line.

Lines to exclude controls how many lines are excluded for each occurrence of the Exclude text string. For values greater than one, additional lines are excluded below the line where the Exclude match string occurs.

Exclude Lines are often used to eliminate the repetitive output of titles and headings after the first page of a report. On the first page of the report, the **Line (T)itle** and **Line (H)eading** commands can be used to indicate the page titles and column headings. The **Exclude Lines Define...** command can then be used to exclude all subsequent occurrences of titles and headings.

Lines with a Heading or Title treatment will not be excluded during translation. Lines set as Output Lines—indicated by an uppercase "O" in the left margin—will not be excluded during translation.

In Global Skip Lines Mode, Exclude Lines have precedence over Include Lines. If an Exclude match string occurs in an Include Line's range, the Exclude Lines will not be translated. In Global Output Lines Mode, Include Lines have precedence over Exclude Lines.

Exclude Lines Edit...

Removes a specified Exclude Line definition and allows editing of the match string.

Procedure:

1. From the **Exclude** menu, choose **Lines** and then **Edit**.
2. The Exclude Line Strings dialog box appears. Select one of the Exclude Line operations from the list.
3. Select Delete Marked, Delete All or Edit.
4. Press OK to return to the mask screen.

Exclude Characters Define...

Excludes a specified character string from translation.

Procedure:

1. Highlight the character string to be excluded from translation.
2. From the **Exclude** menu, choose **Characters** and then **Define...**
3. The Define Exclude Character dialog box appears. If required, type in a Replacement String.
4. In the Position on line field, choose At position or Anywhere.
5. Press OK to apply the Exclude Character definition.

The Input File will be re-displayed, omitting the Excluded characters from all lines of the display. If defined, the replacement strings will be displayed.

Use this command to exclude a specific string of characters any time they are encountered during translation. Excluded characters can be optionally replaced with a different string of characters. This command can be used to remove or replace printer control codes and “escape sequences”. It can also be used to search and replace.

Exclude Character String shows the originally selected character string to be excluded from translation.

Replacement String controls what characters are put in place of the excluded characters. The Replacement String is optional, but users may want to type the number of spaces equal to the length of the character string to preserve column and line spacing.

Position on line controls where the character string can occur on a line.

> ***At position*** indicates the character string must occur at the same line position as the originally selected character string.
>
> ***Anywhere*** indicates the character string can occur at any position on a line.

Exclude Characters All Special Characters

Excludes all control characters, except the escape character (ASCII 27).

Procedure:

1. From the **Exclude** menu, choose **Characters**, and then **All Special Characters**.

ASCII character codes 0 through 31 in an Input File are generally formatting or control characters generated by the program that created the file. Such special characters interfere with the display of the file in the Mask window, causing misalignment of the columns.

Use this command to exclude all characters with ASCII codes 0 through 31. The escape character is not excluded automatically because many times the escape character is used to signal that one or more of the following characters are printer control codes. These are called “escape sequences.” Undesired escape sequences in the Input File can be removed by highlighting an occurrence of the characters in the escape sequence and then choosing **Exclude Characters Define...**

Exclude Characters Edit

Removes a specified Exclude Characters definition and allows editing of the replacement string.

Procedure:

1. From the **Exclude** menu, choose **Characters** and then **Undo From List...**

2. The Exclude Character Strings dialog box appears. Select one of the Exclude operations from the list.
3. Press either Delete Marked or Delete All or Edit.
4. Press OK to return to the mask screen.

Exclude Characters Undo All Special

Removes a previous **Exclude Characters All Special Characters** command.

Procedure:

1. From the **Exclude** menu, choose **Characters** and then **Undo All Special**.

Use this command to undo a previous **Exclude Characters All Special Characters** command. Use **Exclude Characters Edit** to undo any other previous Exclude Characters command.

Exclude Pause Define...

Suspends translation of any lines into the Output File when a match string is encountered.

Procedure:

1. Highlight the text string that will suspend line translation.
2. From the **Exclude** menu, choose **Pause** and then **Define...**
3. The Define Pause String dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.
4. In the Position on line field, choose At position or Anywhere.
5. Press OK to apply the Pause definition.

Use the **Exclude Pause** command in conjunction with **Include Resume Define...** to extract blocks of information that occur over a variable number of lines. Use the **Include Line Define...** command to specify translation blocks with a fixed number of lines.

The text string field under Original String defines what characters must be present on a line in order for translation to be suspended. Use the special pattern matching characters as wildcards for searches: See Appendix F: Match String Wildcard Characters for more information about pattern matching characters.

Position on line controls where the text string can occur on a line.

> ***At position*** indicates the text string must occur at the same line position as the original text string.
>
> ***Anywhere*** indicates the string can occur at any position on a line.

*Set the current mask to begin in Pause mode by choosing **Options Global** and marking the Begin in Pause mode option.*

The Pause command stops translation of rows based on the occurrence of a text string in the Input File. The Pause definition suspends translation of the line on which the text string occurs and any line thereafter until a Resume text string is encountered. Resume definitions are created using the **Include Resume Define...** command. For more information about the Resume command, see "Include Resume Define" on page 88.

Exclude Pause Undo...

Excludes the previous Pause definition.

Procedure:

1. From the **Exclude** menu, choose **Pause** and then **Undo**.

Use this command to remove a previously applied Pause definition.

Exclude Blank Lines

Removes empty lines in an Input File from translation.

Procedure:

1. From the **Exclude** menu, choose **Blank Lines**.

Use this command when the input file contains blank lines that you do not want in the output file.

Exclude Page Ejects

Removes page ejects (form feed, ASCII character code 12) from data in the Input File during translation.

Procedure:

1. From the **Exclude** menu, choose **Page Ejects**.

The Input File will be re-displayed, omitting all form feed characters from the display.

This option should be selected if form feeds are present in the Input File and the translation is of spreadsheet, database, or interchange format. When printing, some software programs insert a form feed character as a page eject indicator and an end of line indicator. When DataImport excludes a form feed, it replaces it with an end of line indicator.

Exclude Duplicate Lines

Removes lines that are exactly the same as the preceding line.

Procedure:

1. From the **Exclude** menu, choose **Duplicate Lines**.

Some programs on mainframe computers print a line, perform a carriage return without a line feed, and print the line again. This results in double striking or "bold" print used for emphasizing titles and headings on reports. This option removes the second line of print.

Line

Line
- ÃÄ Default
- ÃÄ (S)kip
- ÃÄ (H)eading
- ÃÄ (O)utput
- ÃÄ (T)itle
- ÃÄ (A)bort
- ³
- ÃÄ Push Pull Treatments...
- ÀÄ Undo All Treatments

Line Default

Resets line treatment to the default mode.

Procedure:

1. Highlight the line(s) to be defined.
2. From the **Line** menu, choose **Default**.

The selected lines are set to the system default. The Line Control Bar will display a small “o” for each line if the mask is set to Global Output Line Mode or a small “s” if the mask is in Global Skip Line Mode. For more information about Global modes, see “Options Global” on page 106.

*To reset all line treatments in the mask to the default mode, choose **Line Undo All Treatments**.*

Use this command to remove treatments from a line that has been defined as Output, Skip, Heading or Title. All lines in a new mask default to the Global Mode setting. Line treatment defaults to the Global Mode setting until another line treatment (Output, Skip, Heading, Title, etc.) is selected or Include and Exclude Lines are defined.

Line (S)kip

Defines lines to be ignored during translation.

Procedure:

1. Highlight the line(s) to be defined.
2. From the **Line** menu, choose **(S)kip**.

An “S” appears in the Line Control Bar on the left margin to indicate that the lines will be skipped.

*The Mask window's **Exclude Lines Define...** Command also skips lines during translation based on the occurrence of a match string.*

Use the **Line Skip** command to exclude specific lines from being included in the output file. Skip Lines are positional. For example, if line 5 is set to Skip, every translation using this mask will not output line 5 of the input file, no matter what text is on the line.

Line (H)eading

Translates text within columns on the selected lines as column headings.

Procedure:

1. Highlight characters on the line(s) to be defined.

2. From the **Line** menu, choose **(H)eading**.

An "H" appears in the Line Control Bar on the left margin to indicate that the lines will be treated as Headers. The headings are displayed on the screen with a magenta background.

Heading line treatment can be used to make sure that numbers that are in column headings are not translated as values.

Lines defined as Headings include only data within defined column ranges, not data for the entire line. During translation, each intersection of a Heading Line and a column results in a cell being output. The cell type is always text.

When Unstacking data (**Options Unstack**), Heading Lines are duplicated over the unstacked data.

Line (O)utput

Defines lines to be included in the translation.

Procedure:

1. Highlight the line(s) to be defined.
2. From the **Line** menu, choose **(O)utput**.

An "O" appears in the Line Control Bar on the left margin to indicate that the lines will be treated as Output. Numeric values are displayed on the screen with a blue background, labels with a magenta background, and dates with a green background. Lines defined as Output Lines include only data in defined column ranges, not data for the entire line. During translation, each intersection of an Output Line and a column result in a cell being output. The formatting assigned to the cell is based on each column's Type setting.

Output Lines are positional, not associated with a particular format or character string. If lines 2 and 3 are marked as Output Lines, then lines 2 and 3 are always output during translation, no matter what data is on the line.

Line (T)itle

Translates the entire line as text or a single long label.

Procedure:

1. Highlight the line(s) to be defined.
2. From the **Line** menu, choose **(T)itle**.

A "T" appears the Line Control Bar on the left margin to indicate that the lines will be translated as Titles. Title Lines are displayed on the screen with a red background. Use this command to define lines that should be translated as a single long label in the first column of your spreadsheet. Titles are not translated into database output files.

Titles are commonly used when the Input File is a report. Most reports contain information at the top of each page such as the report name and date of printing. Defining lines as Titles keeps this information intact. Column selection does not affect the translation of Title Lines.

The **Exclude Line Define...** command can be used to suppress the output of page titles after the first page.

Line (A)bort

When you are defining a new mask for a large Input File, you can test your mask by temporarily defining an Abort line.

Defines an artificial end-of-file at the selected line.

Procedure:

1. Highlight the line to be defined.
2. From the **Line** menu, choose (A)bort.

An "A" appears the Line Control Bar on the left margin and all following lines are marked with an "a" to indicate that these lines will not be translated.

Defining a line as Abort causes DataImport to act as if it has reached the end of the Input File. The information translated up to the Abort Line is saved in the Output File. An Abort definition supersedes all other line treatments on the initial Abort line and all lines following it. Remove an abort line by selecting the line and then choosing **Line Default**.

Push/Pull Treatments...

Moves the selected line treatments further up or down in the mask.

Procedure:

1. Highlight the line(s) where the line treatment is to be inserted.
2. From the **Push/Pull Treatments...** dialog box, choose **Insert Default Line Treatments** or **Delete Line Treatments**.

Insert Default Line Treatments is typically used to modify an existing mask when additional lines are inserted into the body of a report. Inserting line treatments into the mask moves all previously defined line treatments down without changing them. The line treatments that are inserted are set to the default line treatment.

Delete Line Treatments is typically used to modify an existing mask when lines are removed from the body of a report. Deleting line treatments from the mask moves all previously defined line treatments up without changing them. Line treatments on the selected lines are discarded.

Line Undo All Treatments

Resets all line treatments to the default line treatment.

1. From the **Line** menu, choose **Delete Treatments**.

Use this command to reset all current line treatments to the default line treatment. The default line treatment—Output or Skip—is controlled by choosing **Options Global...** and marking either the Output lines or Skip lines option under Default Line Treatment.

Unstack
ÃÄ Define...
ÀÄ Undo...

Unstack Define...

Turns sets of a specified number of stacked lines into single longer lines.

Procedure:

1. Select a text match string which will identify sets of lines to unstack.
2. From the **Unstack** menu, choose **Define...**
3. Modify the match string if necessary. Wildcard characters can be used.
4. In the Lines to unstack field, enter the number of lines to unstack.
5. To apply the unstacking function, press OK.

Only one unstack command is allowed per mask.

The following example illustrates how a report file with stacked lines looks before and after it is converted.

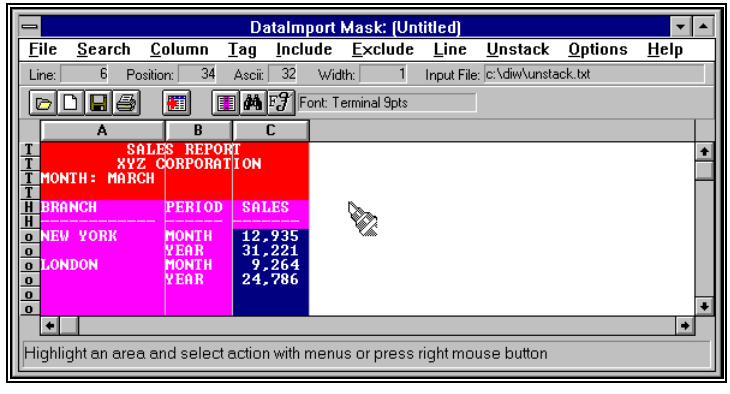

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 6 Position: 34 Ascii: 32 Width: 1 Input File: c:\diw\unstack.txt
Font: Terminal 9pts
A B C
SALES REPORT
XYZ CORPORATION
MONTH: MARCH
BRANCH PERIOD SALES
NEW YORK MONTH 12,935
YEAR 31,221
LONDON MONTH 9,264
YEAR 24,786
Highlight an area and select action with menus or press right mouse button

Figure 5-5 *Stacked Input File with columns and headings defined*

In this example, the Unstack command was defined with 2 Lines to unstack and with “MONTH” as the match string. The screen below shows the results of the Unstack command.

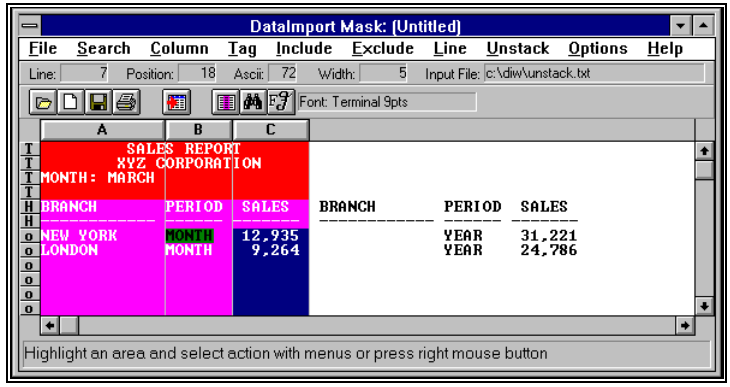

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 7 Position: 18 Ascii: 72 Width: 5 Input File: c:\diw\unstack.txt
Font: Terminal 9pts
A B C
SALES REPORT
XYZ CORPORATION
MONTH: MARCH
BRANCH PERIOD SALES
NEW YORK MONTH 12,935
LONDON MONTH 9,264
BRANCH PERIOD SALES
YEAR 31,221
YEAR 24,786
Highlight an area and select action with menus or press right mouse button

Figure 5-6 *Unstacked lines*

Notice that the yearly data has been moved into new columns to the right of the monthly data and that the Heading information has been duplicated over the new columns. To complete the mask definition, two new columns should be defined for the new yearly PERIOD and SALES columns.

If the Input File has a heading at the top of each page and a block of lines starts at the bottom of one page and carries over to the next page, it is necessary to perform two translations. The first translation is used to remove all of the headings from the file so that they do not interfere with unstacking. To do this, define columns for the desired data, exclude the headings (or include the desired lines), and translate to a print image (.PRN) file. The second translation uses the output of the first translation as a new clean input file.

To unstack lines only within a column, select the Text Block column type in the Column Dialog Box.

The DataImport Utilities application will also unstack lines. It is useful when it is not possible to define a match string. This is often the case with address labels.

Unstack Undo...

Removes the effects of an Unstack command.

Procedure:

1. From the **Unstack** menu, choose **Undo**.

Use this command to remove an unwanted or incorrect Unstack command.

Options

```
³
ÃÄ Formula Rows
³       ÃÄ Column Change...
³       ÃÄ Insert on Match...
³       ÃÄ Replace on Match...
³       ÃÄ Display Current Settings
³       ÀÄ Undo
ÃÄ Global...
ÃÄ International...
ÃÄ Dates...
ÃÄ Signed Overpunch...
³
ÀÄ Preferences...
```

Options Formula Rows Column Change...

Inserts a row of formulas based on a data change in a specified column.

Procedure:

1. From the **Options** menu, choose **Formula Rows** and then **Column Change...**
2. The @Formula dialog box appears. Type in the letter of the column to be checked for a data change.
3. Press OK to apply the Formula Row definition.

Formula Rows are calculated with the @Formula definitions for each column.

Use this command to insert formula subtotals into the output file when the data in one column changes. For example, the data in column A in the sample report below lists ATLANTA 4 times and then changes to SAN FRANCISCO. By defining a Formula Row Column Change based on column A, a subtotal formula line is inserted after the last ATLANTA for the ATLANTA data. The formulas are inserted and calculated again after the last SAN FRANCISCO for that group of data.

On the following report, sales are listed in city sequence.

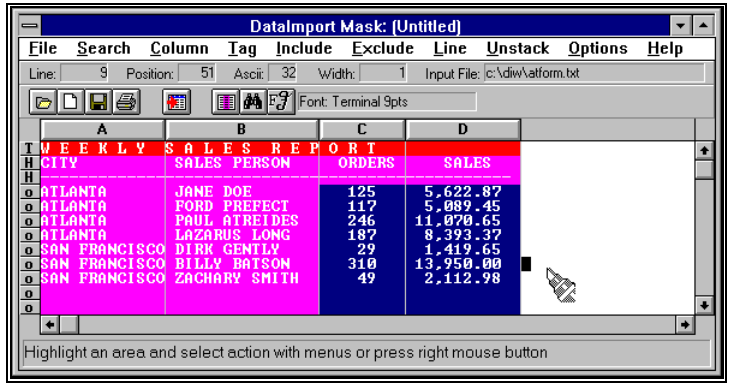
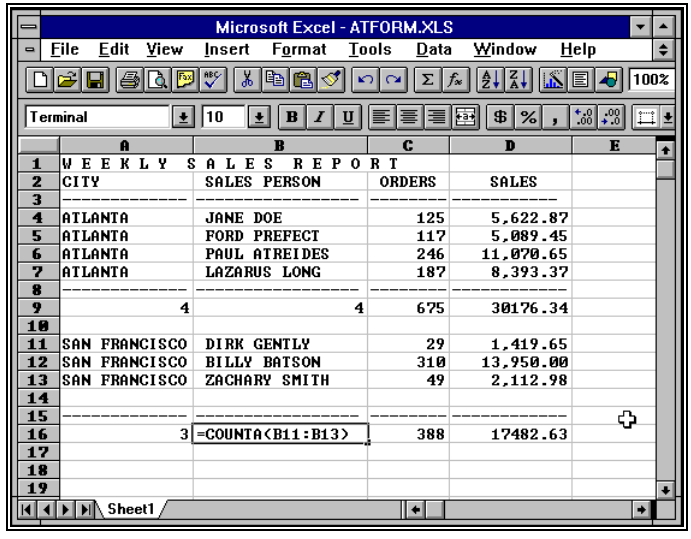

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 51 Ascii: 32 Width: 1 Input File: c:\diw\atform.txt
Font: Terminal 9pts
A B C D
WEEKLY SALES REPORT
CITY SALES PERSON ORDERS SALES
ATLANTA JANE DOE 125 5,622.87
ATLANTA FORD PREFECT 117 5,089.45
ATLANTA PAUL ATREIDES 246 11,070.65
ATLANTA LAZARUS LONG 187 8,393.37
SAN FRANCISCO DIRK GENTLY 29 1,419.65
SAN FRANCISCO BILLY BATSON 310 13,950.00
SAN FRANCISCO ZACHARY SMITH 49 2,112.98
Highlight an area and select action with menus or press right mouse button

Figure 5-7 *Input File without subtotals*

If all columns on this report are defined, and the CITY column (column A) is declared for the **Formula Rows Column Change** option, subtotals are inserted at the end of each CITY's listing. Below is the resulting report, in spreadsheet form. The spreadsheet actually contains the formulas, as indicated in cell B16.



	A	B	C	D	E
1	W E E K L Y S A L E S R E P O R T				
2	CITY	SALES PERSON	ORDERS	SALES	
3	----------	----------	----------	----------	
4	ATLANTA	JANE DOE	125	5,622.87	
5	ATLANTA	FORD PREFECT	117	5,089.45	
6	ATLANTA	PAUL ATREIDES	246	11,070.65	
7	ATLANTA	LAZARUS LONG	187	8,393.37	
8	----------	----------	----------	----------	
9	4	4	675	30176.34	
10					
11	SAN FRANCISCO	DIRK GENTLY	29	1,419.65	
12	SAN FRANCISCO	BILLY BATSON	310	13,950.00	
13	SAN FRANCISCO	ZACHARY SMITH	49	2,112.98	
14					
15	----------	----------	----------	----------	
16	3	=COUNTA(B11:B13)	388	17482.63	
17					
18					
19					

Figure 5-8 *Output File with formulas for subtotals inserted*

Notice that a solid dashed line is output before the formula row. After the formula row, a blank row is output. This formatting makes it easy to determine where DataImport has inserted formulas.

If no formula is defined for a column, its cell in the formula row is blank. To define or change an @Formula for a column, use the **Column Define...** command.

The column to be tested for a change in contents can be a normally defined column or a Line Tag column. DataImport calculates a Formula Row Column Change only if the Output File type is a spreadsheet.

Applying this function replaces a previous Formula Row definition. To check which (or if a) formula row definition has been set, look for a check mark next to an option on the **Option Formula Row** submenu.

Options Formula Rows Insert on Match

Inserts a row of formulas based on the occurrence of a specified text string.

Procedure:

1. Highlight a text string to identify the end of a data set.
2. From the **Options** menu, choose **Formula Rows** and then **Insert on Match**.

3. The Define @Formula Match String dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.
4. In the Position on line field, choose At position or Anywhere.
5. Press OK to apply the Formula Row definition.

Use this function to insert formula lines at the occurrence of a specific text string. For example, the report below lists sales by region and then prints END REGION: after each region. By defining END REGION: as a match string, you can use the **Formula Rows Insert on Match** function to insert @Formula subtotals before each occurrence of that text string. On the following report, the region name appears after the list of cities in the region.

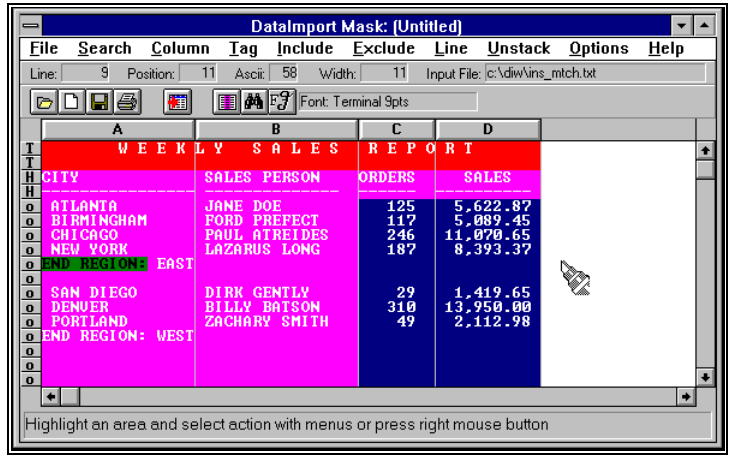

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 11 Ascii: 58 Width: 11 Input File: c:\diw\ins_mtch.txt
Font: Terminal 9pts
A B C D
WEEKLY SALES REPORT
CITY SALES PERSON ORDERS SALES
ATLANTA JANE DOE 125 5,622.87
BIRMINGHAM FORD PREFECT 117 5,089.45
CHICAGO PAUL ATREIDES 246 11,070.65
NEW YORK LAZARUS LONG 187 8,393.37
END REGION: EAST
SAN DIEGO DIRK GENTLY 29 1,419.65
DENVER BILLY BATSON 310 13,950.00
PORTLAND ZACHARY SMITH 49 2,112.98
END REGION: WEST
Highlight an area and select action with menus or press right mouse button

Figure 5-9 *Input File without subtotals by region*

If all columns on this report are defined, and the match string is defined as “END REGION:” for the **Formula Rows Insert on Match** command, subtotals are inserted before the match string. Following is the resulting report, in spreadsheet form. The spreadsheet actually contains the formulas, as shown in cell B18.

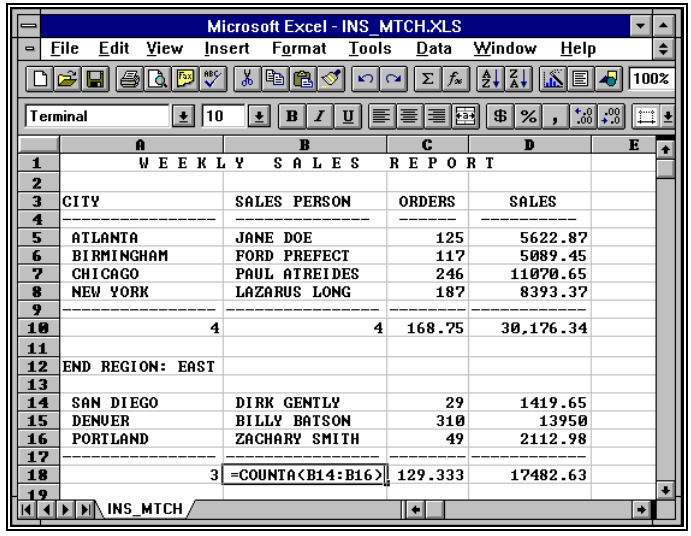

Microsoft Excel - INS_MTCH.XLS
File Edit View Insert Format Tools Data Window Help
Terminal
10
100%
WEEKLY SALES REPORT
CITY | SALES PERSON | ORDERS | SALES
ATLANTA | JANE DOE | 125 | 5622.87
BIRMINGHAM | FORD PREFECT | 117 | 5089.45
CHICAGO | PAUL ATREIDES | 246 | 11070.65
NEW YORK | LAZARUS LONG | 187 | 8393.37
4 | 4 | 168.75 | 30,176.34
END REGION: EAST
SAN DIEGO | DIRK GENTLY | 29 | 1419.65
DENVER | BILLY BATSON | 310 | 13950
PORTLAND | ZACHARY SMITH | 49 | 2112.98
3 | =COUNTA(B14:B16) | 129.333 | 17482.63
INS_MTCH

Figure 5-10 *Output File with formulas inserted for each region*

Notice that a solid dashed line is output before the formula row. After the formula row, a blank row is output. This formatting makes it easy to determine where DataImport has inserted formulas.

In the Define @Formula Match String dialog box, the text string field under Original String defines what characters must be present on a line in order for a formula row to be inserted. Use the special pattern matching characters as wildcards for searches: See Appendix F: Match String Wildcard Characters for more information about pattern matching characters.

Position on line controls where the text string can occur on a line.

> ***At position*** indicates the text string must occur at the same line position as the original text string.
>
> ***Anywhere*** indicates the text string can occur at any position on a line.

DataImport inserts formulas during translation only if the Output File type is a spreadsheet. This command replaces the selection of any other Row Formula option.

The type of formula that is output is dependent upon each column @Formula setting. If no formula is defined for a column, its cell in the formula row is blank. To define or change an @Formula for a column, use the **Column Define...** command.

Options Formula Rows Replace on Match

Replaces a line where a specified text string occurs with a row of formulas.

Procedure:

1. Highlight a text string that identifies lines to be replaced.
2. From the **Options** menu, choose **Formula Rows** and then **Replace on Match**.
3. The Define @Formula Match String dialog box appears. If necessary, type in new characters or pattern match characters under the Original String field.
4. In the Position on line field, choose At position or Anywhere.
5. Press OK to apply the Pause definition.

Use this function to overwrite lines where a text string occurs with a formula line. For example, the report below lists sales by region and then prints END REGION: after each region. By defining END REGION: as a match string, you can use the **Formula Rows Replace on Match** function to insert @Formula subtotals that will replace the lines where the text string occurs.

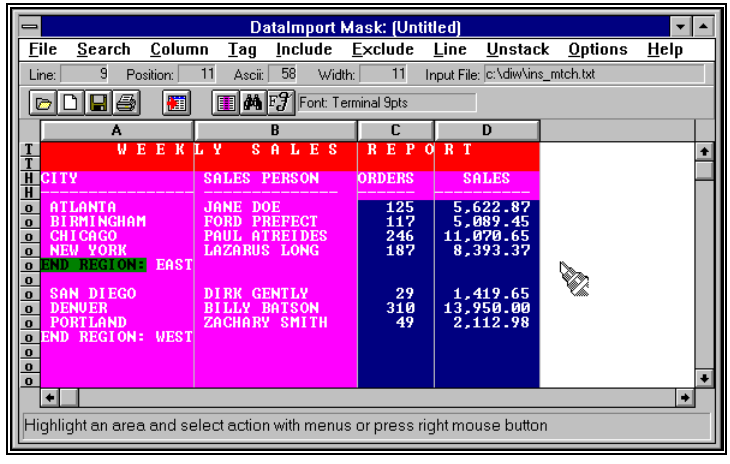

DataImport Mask: (Untitled)
File Search Column Tag Include Exclude Line Unstack Options Help
Line: 9 Position: 11 Ascii: 58 Width: 11 Input File: c:\diw\ins_mtch.txt
Font: Terminal 9pts
A B C D
WEEKLY SALES REPORT
CITY SALES PERSON ORDERS SALES
ATLANTA JANE DOE 125 5,622.87
BIRMINGHAM FORD PREFECT 117 5,089.45
CHICAGO PAUL ATREIDES 246 11,070.65
NEW YORK LAZARUS LONG 187 8,393.37
END REGION: EAST
SAN DIEGO DIRK GENTLY 29 1,419.65
DENVER BILLY BATSON 310 13,950.00
PORTLAND ZACHARY SMITH 49 2,112.98
END REGION: WEST
Highlight an area and select action with menus or press right mouse button

Figure 5-11 *Input File without subtotals by region*

If all columns on this report are defined, and the match string is defined as “END REGION:” for the **Formula Rows Replace on Match** command, subtotals are written on the line where the match string occurs. Following is the resulting report, in spreadsheet form. The spreadsheet actually contains the formulas, as shown in cell B16.

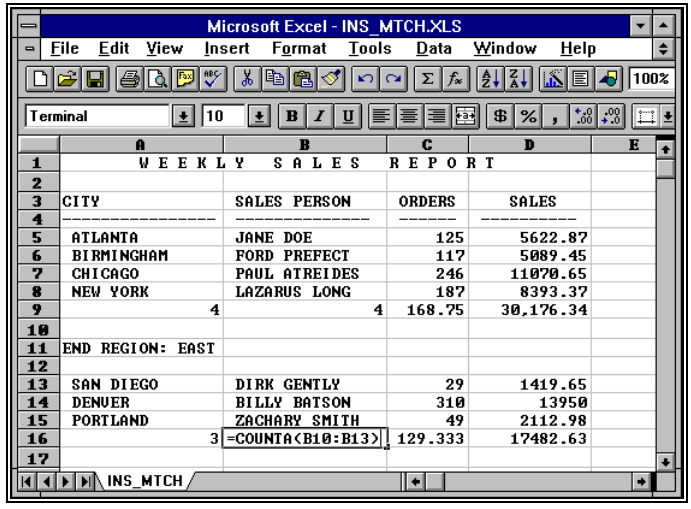


Figure 5-12 *Output file with formulas replacing the end region line*

In the Define @Formula Match String dialog box, the text string field under Original String defines what characters must be present on a line in order for it to be replaced by a formula row. Use the special pattern matching characters as wildcards for searches: See Appendix F: Match String Wildcard Characters for more information about pattern matching characters.

Position on line controls where the text string can occur on a line.

> ***At position*** indicates the text string must occur at the same line position as the original text string.
>
> ***Anywhere*** indicates the text string can occur at any position on a line.

DataImport inserts formulas during translation only if the Output File type is a spreadsheet. This command replaces the selection of any other Formula Row option.

The type of formula that is output is dependent upon each column @Formula setting. If no formula is defined for a column, its cell in the formula row is blank. To define or change an @Formula for a column, use the **Column Define...** command.

Options Formula Rows Display Current Settings

Shows current settings for insertion of Formula Rows.

Procedure:

1. From the **Options** menu, choose **Formula Rows** and then **Display Current Settings**.

Use this command to quickly check the status of the Formula Row functions. A check mark on the Formula Rows submenu indicates which of the Formula Row functions is in use (if any).

Options Formula Rows Undo

Removes Formula Row definitions.

Procedure:

1. From the **Options** menu, choose **Formula Rows** and then **Undo**.

Use this command to remove unwanted or incorrect Formula Row definitions.

Options Global...

Controls global settings for the current mask.

Procedure:

1. From the **Options** menu, choose **Global...**
2. The Global Settings dialog box appears. Change or edit the appropriate options.
3. Press OK to apply the new global mask definitions.

Use this command to control special settings in the mask.

Default Line Treatment controls the default starting point for translation of data.

> ***Output lines*** option or Global Output Lines Mode assumes that—by default—all data within columns of all lines will be translated, so the user must specify what lines of data *should not* be translated.
>
> This option is appropriate if most of the lines in an Input File are to be included in the translation, or if you are using the **Exclude** and **Line Skip** commands to control data selection.
>
> In Global Output Line Mode, Include Lines have precedence over Exclude Lines. That is, if an Include match string occurs in an Exclude Lines' range, the Include Lines will be translated.
>
> ***Skip lines*** option or Global Skip Line Mode assumes that—by default—no data within columns on any line will be translated, so the user must specify what lines of data *should* be translated.
>
> This option is appropriate if more of the lines in an Input File are not included in translation or if you are using the **Include** or **Line Output** commands to control data selection.
>
> In Global Skip Lines Mode, Exclude Lines have precedence over Include Lines. That is, if an Exclude match string occurs in an Include Lines' range, the Exclude Lines will be not be translated.

Transpose rows and columns translates rows as columns and columns as rows. Selecting this option only changes spreadsheet format output files; no changes are made to the Input File or the display in the Mask window.

Begin in Pause mode automatically inserts a Pause command at the beginning of the Input File. Use this option if you plan to use a Resume and Pause command combination to select lines of data for translation.

For more information about Pause and Resume, see “Include Resume Define” on page 88 and “Exclude Pause Define” on page 93.

Output column names to spreadsheet and delimited types will output the column names. With spreadsheet data types, the column names are output into the cells on the first row of the output file. With comma separated variable data types, the column names are output as the first record with separators surrounding each column name

Dictionary file for names and addresses selects the dictionary file to use when parsing names and addresses. The default dictionary file is DEFAULT.DIC. You can create your own custom dictionary file to handle different prefixes, suffixes, etc.

Starting Cell Address starts the output of a spreadsheet translation at a cell address other than A1. This option is useful when combining the output of a translation into an existing spreadsheet; when the output file is combined with another file, DataImport writes data into the existing file starting with the Starting Cell address.

The starting cell address is used as an offset. For example, if A1 is the starting cell and columns C, D and E are defined, and the starting cell is changed to B1, the existing columns will be redefined as D, E and F.

First positions to exclude removes a specified number of character positions at the beginning of each line. This option is typically used to remove carriage control characters.

Beginning of line carriage control characters are included in reports created by some programming languages on certain computers. FORTRAN, for example, uses the first character of each line to indicate carriage control.

Beginning of line carriage control is used on some types of mini and mainframe computers to tell the printer when to perform line feeds and page ejects. This type of carriage control is not used on personal computers.

Options International...

Defines settings for recognition and translation of currency, dates, decimals and ASCII code pages.

Procedure:

1. From the **Options** menu, choose **International...**
2. The International Settings dialog box appears. If you wish to use the previously saved system default settings, press the Load defaults button.
3. Change or edit options as necessary.
4. If you wish to save these settings for future use in other masks, press the Save as defaults button.
5. Press OK to apply the new International Settings.

Use this command to control how DataImport translates currency, dates, thousands notation, decimals, months and ASCII code pages.

Any changes made to the International settings are saved in the definition of the current Mask. Settings saved using the Save as defaults button in the International Settings dialog box become the new system defaults. To load the system defaults into the current mask, press the Load defaults button.

Number Format options control how Numeric format data is translated to an output file by DataImport.

> ***Currency*** defines the character(s) DataImport recognizes as the currency symbol. The default is "$" (U.S. dollar). The selected currency symbol is used in all translations until changed.
>
> ***Thousands*** defines the character DataImport recognizes as the symbol used to separate thousands. The default is "," (comma).
>
> ***Decimal*** defines the character DataImport recognizes as the symbol that separates the fractional or decimal part of a number from the integer part of the number. The default is "." (period).

Code Page changes the code page that is used for interpreting ASCII characters whose values are above 127. By default, MS-DOS and DataImport use the U.S. Code page (437) to display and interpret the ASCII characters above 127.

If your computer uses a different code page than the default, or if your Input File was created on a computer that uses a different code page, you may have to change this setting for DataImport to translate correctly. The selected code page is used for all translations until another is selected.

Month Names changes the spellings of names DataImport recognizes as months. The spelling of one or more months can be changed. The default setting is U.S. English spellings.

DataImport recognizes the entire month-name or only the first part and is not upper/lower case sensitive. For example, the text September, Sept and SEP are all recognized as the month "September".

Options Dates...

Defines Custom date format and two digit year translation.

Procedure:

1. From the **Options** menu, choose **Dates...**
2. The Date Settings dialog box appears. If you wish to use the previously saved settings, press the Load defaults button.
3. Change or edit options as necessary.
4. If you wish to save these settings for future use in other masks, press the Save as defaults button.
5. Press OK to apply the new Date settings.

Custom Date Format defines a non delimited custom date for use in Column Definitions. The date format defined here will appear in the Column Settings dialog box in the Type option menu.

To define a custom date, type in Y for year, M for month and D for day. Each letter represents one digit of a date number. The default custom date is "YYMMDD".

Year for 19XX defines how a two-digit year is interpreted by DataImport. If the two digits (XX) are a number equal to or greater than the number defined here, the year is translated as 19XX. If the digits are less than the number defined here, the year is translated as 20XX. For example, with the Year for 19XX option set to 50, "51" would be interpreted as 1951 and "12" would be interpreted as 2012.

Options Signed Overpunch...

Defines how signed overpunch characters that occur in some raw data files are translated.

Procedure:

1. From the **Options** menu, choose **Signed Overpunch...**
2. The Signed Overpunch Settings dialog box appears. Choose the appropriate Character Set.
3. Choose the position of the signed overpunch characters from the Position options.
4. Press OK to apply the Signed Overpunch definition.

Use the Signed Overpunch Settings dialog box to control the automatic translation of signed overpunch characters.

Any changes made to the Signed Overpunch Settings are always saved when the current Mask is saved. Settings saved using the Save as defaults button in the Signed Overpunch Settings dialog box become the system defaults. To load the system defaults into the current mask, press the Load defaults button.

Characters shows the current interpretation of ASCII characters for signed overpunch data.

> ***Value*** indicates the output value of overpunch characters.
>
> ***Char*** shows which characters are interpreted as overpunch characters. Choosing Custom from the Character Set options makes the Char characters editable.
>
> ***ASCII*** shows the ASCII value of the characters in the Char field.

Character Set defines the set of characters that are translated as signed overpunch characters. Three options are displayed; **0-9,}-R** and **{-I,}-R** and **Custom**. One of the first two options will translate most Input Files correctly. If the Input File uses a scheme other than these two, select Custom. Choosing Custom makes the Characters Char field editable. Change the characters as appropriate and press the Save as defaults to save the custom translation set for use in future mask definitions.

Translation tables will vary depending on the application and system that created the file containing the signed overpunched numbers. Almost all use the characters "}" through "R" to indicate the negative digits. Most systems use "{" through "I" for the positive digits, but some systems (primarily IBM System 38, 36, and AS400) use "0" through "9".

Position defines where DataImport looks for signed overpunch characters in a number.

Options Preferences...

Defines the system default settings for masks and application settings for DataImport.

Procedure:

1. From the **Options** menu, choose **Preferences...**
2. Change or edit options as necessary.
3. Press OK to set the new Preferences.

Use this command to control system defaults for Output/Skip Lines mode, current Display Font, Custom input file filter and other settings.

Default Line Treatment controls the Output/Skip Lines Mode system default for translation of data. Default is Output Lines. This setting does not change the setting for the current mask. It is used as the default when starting a new mask.

> ***Output lines*** option or Global Output Lines Mode assumes that—by default—all data within columns of all lines will be translated, so the user must specify what lines of data *should not* be translated.
>
> This option is appropriate if most of the lines in an Input File are to be included in the translation or if you typically use the **Exclude** and **Line Skip** commands to control data selection.
>
> In Global Output Lines Mode, Include Lines have precedence over Exclude Lines. That is, if an Include match string occurs in an Exclude Lines' range, the Include Lines will be translated.
>
> ***Skip lines*** option or Global Skip Lines Mode assumes that—by default—no data within columns on any line will be translated, so the user must specify what lines of data *should* be translated.
>
> This option is appropriate if more of the lines in an Input File are not included in translation, or if you typically use the **Include** commands to control data selection.
>
> In Global Skip Lines Mode, Exclude Lines have precedence over Include Lines. That is, if an Exclude match string occurs in an Include Lines' range, the Exclude Lines will be not be translated.

Default Column and Tag Type sets the default column and tag types that will appear when defining a Column or a Line Tag.

Font determines the default display font and font size used to display the input file.

Name sets the display font for the Input File window. The display font can only be a monospaced font and the option menu will only display the available fonts of this type. Default is Fixedsys.

Size sets the size of the current display font. The available fonts have a fixed number of sizes and the option menu will only display the available sizes of the selected font.

Number of Lines to Load sets the number of lines to load into the Mask screen when opening an input file. This number can be from 100 to 16,384. The fewer lines loaded, the faster the screen is updated after Include/Exclude Line selections.

Input File Filter sets a custom Input Filter. Use the *.XXX format and a ";" (semicolon) as a separator, example: *.PRN;*.TXT;*.DOC.

Once the filter is defined, it is available in the Load Input File dialog box in the List Files of Type option menu. Default is none.

Automatically define columns applies the **Column Auto Define All** command automatically if there are no columns defined in the current Mask when an Input File is loaded. Default is off (unmarked).

Expert Mode eliminates all confirmation prompts when executing commands. For example, when Expert mode is on, DataImport will not ask for confirmation when deleting a column. Default is off (unmarked).

Display dialog when defining a column displays the Column Settings dialog box when defining a column. Default is on (marked).

Chapter 6: DataImport Translate Reference

This section details the commands and options for the DataImport Translate program.

DataImport Translate

The DataImport Translate application is used to quickly translate files by applying existing masks. The application can be used to apply one mask to multiple input files, output a single Input File to multiple formats, or to make input/output definition changes to a mask.

Translate Application Window

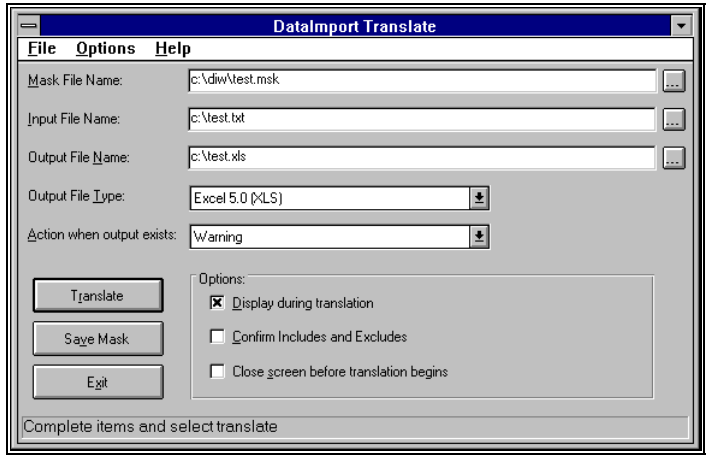


Figure 6-1 *DataImport Translate application window*

Mask File Name controls which mask is used to translate the Input File.

Input File Name controls which file is the source of data to be translated.

Output File Name defines the name of the file to receive the translated data.

Output File Type defines the type of the file to receive the translated data.

Action when output exists specifies what action to take when an Output File of the same name as the Output File Name exists.

Translate performs a translation with the current settings.

Save Mask saves the current mask with the defined output parameters.

Exit closes the Translate application.

Display During Translation displays translated data during translation.

Confirm Includes and Excludes prompts for manual confirmation of each Include and Exclude line as they are encountered during translation.

Close screen before translation begins closes the DataImport Translate application window when translation starts.

File

File
ÃÄ Translate
ÃÄ Save Mask...
ÀÄ Exit

File Translate

Translates the input file using the current displayed settings.

Procedure:

1. From the **File** menu, choose **Translate.**
2. If the Output File exists and the action when output selection is 'Warning', the Output File action dialog box appears. Press Cancel to abort the operation or choose an action to proceed.
3. The Translating dialog box appears and shows the progress of the translation.
4. When the translation is complete, press Exit to return to the Translate window.

Use this command to perform a translation with the current settings. For more information about output formats and settings, see “File Define Output File...” on page 74.

File Save Mask...

Saves the current displayed settings to a Mask File.

Procedure:

1. From the **File** menu, choose **Save Mask...**.

2. Type or select the mask file name, choose a directory for the file and press OK to save the file.

File Save Mask... is used when saving a Mask File you have changed in the Translate application, when naming a new version of an existing mask or for saving the current mask to a different directory.

An extension of .MSK is automatically added to the Mask File name if no extension is provided.

File Exit

Closes the DataImport Translate application.

Procedure:

1. From the **File** menu, choose **Exit**.

Options

Options

Options Display During Translation

Displays translated data during translation.

Procedure:

1. From the **Options** menu, choose **Display During Translation**.

When this option is active, the Translating dialog box displays the translated data in a window as it is output. Turning off this option can increase translation speed, especially for large Input Files.

The default for Display During Translation is on (marked). When this option is active, the Display During Translation option has a check mark next to it in the Option menu.

Turn this option off (or on) by repeating the Procedure above or by clicking on the Display During Translation option on the DataImport Translate window.

Options Confirm Includes and Excludes

Confirms Include and Exclude definitions line by line during translation.

Procedure:

1. From the **Options** menu, choose **Confirm Includes and Excludes**.

Use this option when you are unsure if the mask will include or exclude the correct lines.

The default for Confirm Includes and Excludes is off (unmarked). When this option is active, the Confirm Includes and Excludes option has a check mark next to it in the Option menu.

Turn this option on (or off) by repeating the Procedure above or by clicking on the Confirm Includes and Excludes option on the DataImport Translate window.

Options Close Screen before Translation Begins

Closes the Translate application window when translation starts.

Procedure:

1. From the **Options** menu, choose **Close Screen before Translation Begins**.

Use this option to make the DataImport Translate application close automatically after starting a translation.

Chapter 7: DataImport Utilities Reference

This section details the commands and options for the DataImport Utilities program.

DataImport Utilities

The DataImport Utilities application provides many useful tools for creating files that the Mask program can read and for reformatting data for use in other applications.

Utilities Application Window

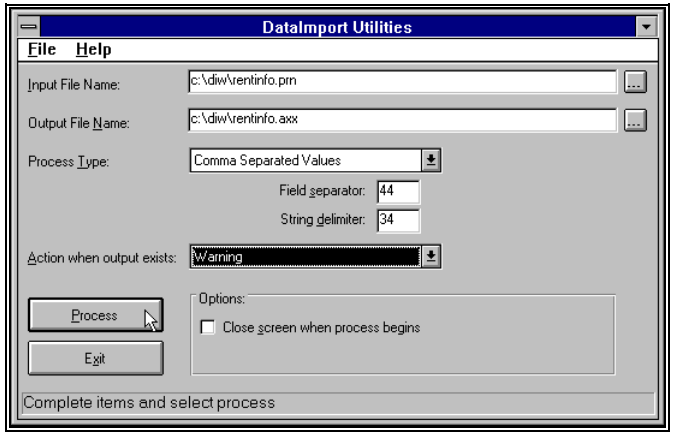


Figure 7-1 *DataImport Utilities application window*

Input File Name controls which data file is processed. Change the Input File by pressing the [...] button at the end of the field, selecting a new file and pressing the OK button.

Output File Name defines the name of the file output from the process. Change the Output File by pressing the [...] button at the end of the field, selecting a new file and pressing the OK button. The extension of the Output file is automatically set by the Utilities application. The extension is in the form Axx, where xx is a number beginning with 1. If one file is output the extension is A1. If three files are output the extensions are A1, A2, and A3.

Process Type specifies what type of process to perform on the Input File. For more information about available process types, see the next section.

Action when output exists specifies what action to take when an Output File of the same name as the Output File Name exists.

Process runs the utility process with the current settings.

Save Mask saves the current mask with the defined output parameters.

Exit closes the Utilities application.

Close screen when process begins closes the DataImport Utilities application window when the process starts.

Processing Types

The DataImport Utilities application can process Input Files for use in the Mask application and reorganize data in many ways. The following options are available in the Process Type option menu of the Utilities application:

ASCII -> EBCDIC
Comma Separated Values
dBase convert
dBase header
EBCDIC -> ASCII
Fixed length
Line split by length
Parse spaces
Records per File Split
Statistics
Tab expansion
Unstack

ASCII -> EBCDIC

Converts a file that is encoded in ASCII to a file that is encoded in EBCDIC. Some mini and mainframe computers encode their characters using EBCDIC. PCs encode their characters using ASCII. To upload a

file that is encoded in ASCII to a computer that encodes its files in EBCDIC use this process.

Comma Separated Values

This option can also be used to convert files that use tabs or any other character to separate fields in a record.

Converts a comma separated value file into a file with fixed length fields. The default field separator is a comma (ASCII 44) and the default string delimiter is quotation marks (ASCII 34). Different field separators and string delimiters can be selected.

Before actually creating the Output File, DataImport Utilities reads the entire Input File to determine the column widths necessary in the Output File. Each column is defined one character position wider than the widest data string in that column.

Files formatted with commas between fields and quotation marks around numbers should be converted to a column oriented file using this option before the mask is defined.

Comma Separated Value Input File

```
"NEW YORK",1034,968,23653
"LONDON",576,2349,9413
"ROME",1439,2008,12537
```

Output File

```
NEW YORK    1034    968     23653
LONDON      576     2349    9413
ROME        1439    2008    12537
```

Figure 7-2 *Comma delimited to columnar conversion*

The numbers in this example are left justified within columns. The numbers will be right justified if the Input File is translated into a spreadsheet or database file.

dBase convert

Creates an ASCII columnar file usable by DataImport from a dBase II, III, or IV database file.

At the top of each column is the dBase field name; space limitations may prevent the entire field name from being displayed. Use the Function Header process type to output the file structure to review the truncated field names.

dBase header

Outputs the dBase II, III, or IV file structure contained in the database file's header record.

When the Go option is selected, the file structure is written to the Output File. This file can be viewed using the Mask application. The file

structure can also be output directly to a printer by specifying the Output File as either LPT1, LPT2 or LPT3.

```
The dBase III file: SALES.DBF contains 137 records.
Each record is 43 bytes long.

# Field name Field type Length Decimals DI Column
- ---------- ---------- ------ -------- ---------
1 BRANCH     Character     15       0        A
2 WEEKSALES  Numeric       10       2        B
3 YEARSALES  Numeric       10       2        C
4 UPDATED    Date           8       0        D
```

Figure 7-3 *dBase file header*

EBCDIC -> ASCII

Converts a file that is encoded in EBCDIC to a file that is encoded in ASCII.

Some mini and mainframe computers encode their characters using EBCDIC. PCs encode their characters using ASCII. To use a file that is encoded in EBCDIC use this process.

NOTE Most PC to Host emulation and file transfer software handles the translation between ASCII and EBCDIC automatically.

Fixed length

Breaks up a fixed length record file that does not have record separators into a sequential file with record separators.

Report files, such as those downloaded from a mainframe, utilize a carriage return and/or a line feed character (ASCII codes 13 and 10, respectively) to indicate the end of each line or record in the file. DataImport requires these record separator characters to function properly.

Most database management systems and many other software programs use data files with fixed length records without record separators. These files are called random or direct access files. These programs recognize the length of each field in the record and do not include record separator characters to save file space. Frequently, the first information in the file describes the fields in the file, their length and type. Users can skip this information by specifying a number of characters, and thereby eliminate the header from the Output File.

The following files illustrate how a data file without record separators looks before and after conversion. In this example, the record length is 18 and the number of characters to skip at the beginning of the file is 29.

Input File Without Record Separators

```
    002OFFICE C 10SALES N 8.2NEW YORK
12935.45LONDON      9264.32ROME
7194.39TOKYO      15778.56
```

Output File

```
    NEW YORK   12935.45
    LONDON      9264.32
    ROME        7194.39
    TOKYO      15778.56
```

Figure 7-4 *Adding record separators*

Line split by length

Splits the Input File vertically by producing two or more Output Files with shorter record lengths. The records in the Input File are divided into shorter records, using the length specified, then written to the Output Files.

This utility is useful when an Input File contains records whose length is greater than 2048 characters; DataImport can display and translate files whose record lengths are shorter than 2048 characters. This utility can facilitate translation of extremely wide files.

For example, if the Input File SALES.DAT, containing records 5,000 characters wide, is split into files whose record length is 2,000, three Output Files are created. The first Output File created is named SALES.A1 and contains the first 2,000 characters of each record from the SALES.DAT Input File. The second file created is named SALES.A2 and contains the next 2,000 characters of each record of the Input File, and the third named SALES.A3 contains the remaining 1,000 characters of each record of the Input File.

Parse spaces

Converts a space separated variable file into a file with fixed length fields. Test and sampling instrumentation and software often create files of this format. There are two parameters that can be specified:

Column width is the width of columns to use for the parsed fields.

Skip Characters is the number of character positions at the beginning of each line to output without parsing. This parameter is optional.

In the following example, the width of the columns is set to 6 positions each, and the number of characters to not parse at the beginning of each line is 19 positions.

Space Separated Variable Input File

```
001 08/13/92 12:32 12 14 23 12 9.876
002 08/13/92 13:10 5 14.6 7
001 08/14/92 12:40 5 34 9.987 12 98
002 08/14/92 13:12 9 12 6.875
```

Output File

```
001 08/13/92 12:32 12  14     23     12    9.876
002 08/13/92 13:10 5   14.6   7
001 08/14/92 12:40 5   34     9.987  12    98
002 08/14/92 13:12 9   12     6.875
```

Figure 7-5 *Space delimited to columnar conversion*

Records per File Split

Splits the Input File horizontally by producing two or more Output Files with fewer records per file.

This function has two useful applications:

DataImport can translate a file with any number of lines.

- Only the first 16,384 records (lines) of a file can be displayed in the Mask application. By splitting extremely long files, all records can be displayed. Remember, there is no limit to the number of lines that can be translated using a mask.
- Spreadsheets have limitations on the number of lines allowed in a worksheet. By splitting a long file, the shorter files can be can be translated into several usable worksheets.

For example, if the Input File ORDER.DAT, contains 7,000 records and the file is record-split into files with 3,000 records per file, DataImport creates three Output Files. The first Output File created is named ORDER.A1 and contains the first 3,000 records from the ORDER.DAT Input File. The second file created is named ORDER.A2 and contains the next 3,000 records, and the third file created is named ORDER.A3 and contains the remaining 1,000 records.

Statistics

Displays statistics about the current Input File. The statistics displayed by this process include the length of the longest line, the number of lines, and whether the file contains tab characters.

This option is often selected to determine if the use of any of the other utility functions are necessary prior to opening the Input File in the Mask application.

Tab expansion

Expands tab characters (ASCII character 9).

For example, if a user defines a tab stop as 8, numbers preceded by a tab character will be aligned in columns on the 9th, 17th, 25th, etc. character positions. The two files below illustrate how this utility works. The first file is shown with tabs displayed as a "→" character. The second file shows how the file looks when the tabs are expanded.

Input File Before Tabs Are Expanded

```
NEW YORK→1,034→968→23,653
LONDON→576→2,349→9,413
ROME→1,439→2,008→12,537
```

Output File After Tabs Are Expanded

```
NEW YORK  1,034   968     23,653
LONDON    576     2,349   9,413
ROME      1,439   2,008   12,537
```

Figure 7-6 *Expanding tabs with the Tab expansion process*

The numbers in this example are left justified within the columns. The numbers will be right justified when DataImport translates this file as a spreadsheet or database file.

Unstack

Reorganizes data blocks where two or more sets of data are mixed in a single column.

*Unstacking can also be done with the **Options Unstack** command in the Mask application.*

Use this command to separate columns with multiple data sets—for instance, yearly, monthly and daily sales—into multiple columns with one data set each.

Lines to unstack is the number of lines in each group of data lines.

Lines to Skip is the number of lines to ignore at the beginning of the file.

In the following example, the number of Lines to unstack is 2 and the number of Lines to Skip at the beginning of the file is 4.

Stacked Input File

```
SALES REPORT
MONTH: MARCH    XYZ CORPORATION
BRANCH          PERIOD SALES
-----------     ------ -------
NEW YORK        MONTH  12,935
                YEAR   31,221
LONDON          MONTH   9,264
                YEAR   24,786
```

Unstacked Output File

```
NEW YORK        MONTH  12,935   YEAR   31,221
LONDON          MONTH   9,264   YEAR   24,786
```

Figure 7-7 *Unstacking records*

If the Input File is a report with a heading at the top of each page, it may be necessary to define a mask and perform a translation to remove the headings before unstacking the file.

Unstacking is also very useful for preparing a text file of names and addresses created with a word processor for translation into a spreadsheet or database file. Unstacking such a file can produce separate columns for name, street address, and city/state/zip code.

File

File
3
ÃÄ Process
ÀÄ Exit

File Process

Processes the Input File and writes the results to the current Output File name.

Procedure:

1. Choose an Input File by pressing the [...] button at the end of the Input File field.
2. Choose an Output File by pressing the [...] button at the end of the Output File field.
3. Choose a Process from the Process Type options menu.
4. From the **File** menu, choose **Process**.

Use this command to initiate Input File processing.

File Exit

Closes the DataImport Utilities application.

Procedure:

1. From the **File** menu, choose **Exit**.

Use this command to close the Utilities application. To automatically close the application upon completion of a process, mark the Close screen when process begins option.

Chapter 8: DataImport Task Commander Reference

This section details the commands and options for the DataImport Task Commander application.

DataImport Task Commander

This section of the User Reference describes operations available in the Task Commander application. Task Commander automates a series of translations and/or utilities within DataImport and saves this information in a Task file (.TSK). Task files can be run, created and edited from the Task Commander screen. Below is the main Task Commander Screen.

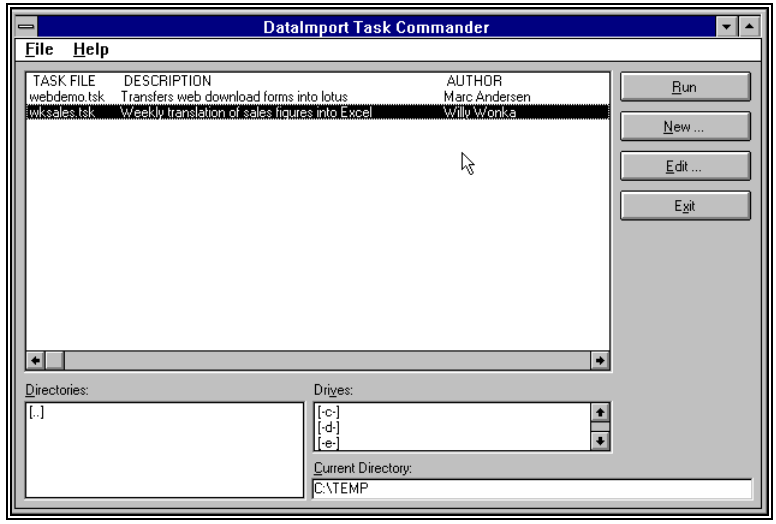


Figure 8-1 *The Task Commander Main Window*

The Task File list box lists all task files in the specified directory. This includes the file name, and the Author and Summary information, if given. There are several buttons on the right of the screen that control the Task Commander as shown below.

Run executes the task file(s) selected in the Task File list box.

New creates a new task file. This opens the Task File dialog box.

Edit changes an existing task file. This opens the Task File dialog box.

Exit closes Task Commander.

Task File Dialog Box

The Task Commander dialog box is where you create and edit task files. This is shown below.

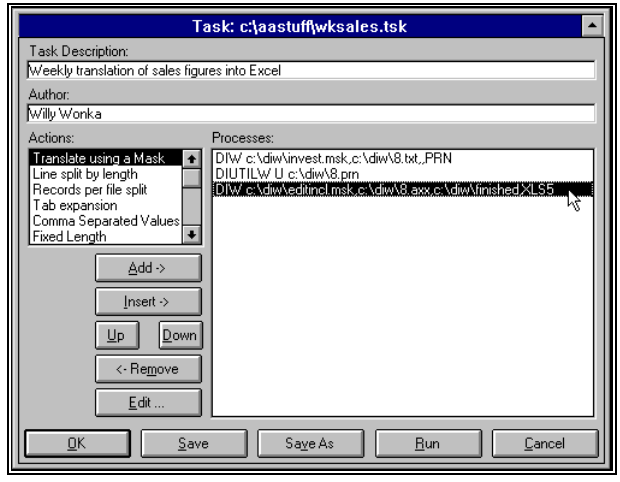


Figure 8-2 *Task File dialog box*

Task Description: This is where a description of the task file can be entered.

Author: This is where the Author can be entered.

Actions: Contains the list of actions that can be performed in a task. The possible actions consist of the Translate command and all of the Utilities process types (except Statistics), and running other non DataImport applications that support command line execution.

Processes: The Processes list box is where the 'script' of the task file is displayed. Multiple actions can be added to the Processes box.

Add Add copies an action from the Actions box to the Processes box.

Insert Inserts the selected Action before the selected Process.

Up Moves the selected Process up one step.

Down Moves the selected Process down one step.

Remove Removes an action or actions from the Processes box.

Edit Edits an action within the Processes box.

Ok Returns to the main Task Commander window. If you have not saved changes to the mask, you will be prompted to save it.

Save Saves the current task file.

Run Executes the task file.

Cancel Returns you to the main Task Commander window.

Based on the action that you select to add or edit, either the Translate parameter or the Utilities parameter window will be displayed. For more information on the Translate and Utilities commands, see Chapter 6; DataImport Translate Reference and Chapter 7: DataImport Utilities Reference.

Note that you can also run a task from a command line or create an Icon for running a task. For more information refer to Appendix G: Command Line Use.

Appendix A: Supported Input File Formats

Input File Formats

The Input File contains the data you want to translate. The file can be any ASCII text file and is typically a print file or output from another computer, such as a mainframe or a PC. DataImport can be used with any text file, including computerized reports from mainframes and midrange computers, word processor text files, saved e-mail messages, recorded online communications, print to disk files and many other files.

If you are having difficulty generating a text output file from your application to use with DataImport, refer to Appendix C: Getting Data out of Other Applications.

Input File Formats

Any ASCII Text File (TXT, ASC..)

Mainframe text reports

Minicomputer text reports

DOS Print to Disk file

Generic/Text Only file (Windows)

Word Processor Text Only file

Text only accounting reports

E-mail reports

Online communications text capture

Print to File (PRN)

Tab Separated Values

Comma Separated Values

Character Separated Values

Fixed Length Record

dBase

EBCDIC

Standard Data Format

Appendix B: Supported Output File Formats

Output Formats

DataImport can create output files for most standard spreadsheet and database programs including Excel, Lotus 1-2-3, Quattro Pro, Access and dBase compatible applications. The next section in this appendix lists the types of formats DataImport can read and write. Check the README file for output format additions, if you do not see the format you need.

Keep in mind that most programs can read earlier versions of their file formats. In most cases, a file format with a version number equal to or less than your software version will work, unless you are combining or appending files. In this case, you must output your data in the same format as the existing output file.

If the application you want to get data into is not on the list of supported output types, check your application's help system or manual for an import feature. Then use DataImport to create a file of the type your application can import. For example, WinFax Pro will import dBase files (DBF) and FedEx Ship will import comma separated ASCII (CSV) files. The most common types of files that applications can import are comma separated values (CSV - sometimes referred to as ASCII or text), tab separated values (TSV), dBASE (DBF) and Lotus version 1A (WKS).

Many database management software products use the dBase format as their native format. These products are often referred to as an xBase product and include FoxPro, Clipper and Alpha.

Output File Types

There are five main types of formats that DataImport supports: spreadsheets, databases, word processing merge data formats, text formats and interchange formats. Some formats may not support features and formats provided by DataImport. For example, formulas are only supported by the spreadsheet output types and field names can only be written to database files. If you are using advanced features of DataImport, read the documentation carefully to make sure that your chosen output format will support it. DataImport will not write anything to the output file that is not supported by the selected output format

Output File List

Product	Type	File Ext.	Com-bine	Ap-pend	Field Name	Table Name	Multi-sheet
ASCII	T	ASC		X			
Clarion	D	DAT		X	X		
Columnwise DIF	I	DIF					
Comma Separated Value	T	CSV		X			
dBase II	D	DBF		X	X		
dBase III	D	DBF		X	X		
dBase IV	D	DBF		X	X		
Excel 2.1	S	XLS	X	X			
Excel 3.0	S	XLS	X	X			
Excel 4.0	S	XLS	X	X			
Excel 5.0	S	XLS	X	X			X
Excel 7.0	S	XLS	X	X			X
Fixed length file	T	FXD		X			
HTML Table	T	HTM					
Lotus 1-2-3 1A	S	WKS	X	X			
Lotus 1-2-3 2.0	S	WK1	X	X			
Lotus 1-2-3 3.0	S	WK3	X	X			X
Lotus 1-2-3 4.0	S	WK4	X	X			X
Lotus 1-2-3 5.0	S	WK4	X	X			X
Mailing Label	T	LBL		X			
Microsoft Access 1.1	D	MDB		X	X	X	
Microsoft Access 2.0	D	MDB		X	X	X	
Microsoft Word Merge	W	WRD		X	X		
Paradox 3.5	D	DB		X	X		

Paradox 4.0	D	DB		X	X		
Print Image	T	PRN		X			
Quattro	S	WKQ	X	X			
Quattro Pro	S	WQ1	X	X			
Quattro Pro 5.0 for Windows	S	WB1	X	X			X
Standard Data Format	T	SDF		X			
Sylk	I	SLK					
Symphony 1.0	S	WRK	X	X			
Symphony 1.1	S	WR1	X	X			
Tab Separated Variable	T	TSV		X			
User-Defined Delimited	T	UDD		X			
WordPerfect 5.0 Merge	W	W50		X	X		
WordPerfect 5.1 Merge	W	W51		X	X		

Figure A-2 *Output File formats and capabilities*

Type Indicates the file type of the format: S=Spreadsheet, D=Database, T=Text, W=Word processing merge data documents, I=Interchange

File Ext. File name extension for output type.

Combine A mark in this column indicates DataImport can combine files of this format. Only spreadsheet formats allow this function.

Append A mark in this column indicates DataImport can append to files of this type.

Field Name A mark in this column indicates this format uses field names in its files. Databases and word processing merge files typically use these names.

Table Name A mark in this column indicates this format uses Table Names in the file. Microsoft Access formats 1.1 and 2.0 are currently the only formats that manage Table Names in this way.

Multi-sheet A mark in this column indicates this spreadsheet program can have multiple sheets per file. DataImport allows you to place data on a specific sheet using the Starting Cell Address field in the **Options Global...** dialog box.

ASCII (ASC)

This text output format is an ASCII file, delimited with commas between fields (DataImport columns cells) and quotation marks surrounding non-numeric fields. This type of file is used with some languages like BASIC for data files. Most database management systems like dBase II or dBase III will read or import this type of file. This format is similar to the Comma Separated Value (CSV) format detailed below.

Alpha (DBF)

This database program uses a version of dBase as its file format. Check your documentation for details.

Clarion (DAT)

This database output format is a the file type used by the Clarion database management program.

Clipper (DBF)

This database program uses a version of dBase as its file format. Check your documentation for details.

Columnwise DIF (DIF)

This data interchange output format arranges data in column-wise order. This file is used to transfer data between spreadsheet programs and other software.

Comma Separated Value (CSV)

This text output format separates items of data with a comma and encases text data with quotation marks. To output files with different separators, see Tab Separated Variable and User Defined Delimited formats below.

dBase II, III, IV (DBF)

These database output formats are standard database formats for dBase compatible programs. The following database translation types can be selected:

dBase II dBase II database file, file extension: DBF

dBase III dBase III and dBase III Plus database file, file extension: DBF This file can be read by many other dBase compatible software products including FoxPro and Clipper.

dBase IV dBase IV database file, file extension: DBF

Excel 2.1, 3.0, 4.0, 5.0 7.0 (XLS)

These spreadsheet output formats are used by the Microsoft Excel application. Lower versions of Excel will not load higher version

worksheet files. Higher versions of Excel will load lower version worksheet files. The following spreadsheet translation types can be selected, the XLS file extension used for all versions of Excel.

Excel 2.1 Microsoft Excel version 2.1 worksheet file.

Excel 3.0 Microsoft Excel version 3.0 worksheet file.

Excel 4.0 Microsoft Excel version 4.0 worksheet file.

Excel 5.0, 7.0 Microsoft Excel version 5.0 and 7.0 worksheet files. (7.0 is Windows 95)

Fixed length file (FXD)

This text output format is a fixed record format file. All fields are fixed width and all records are a fixed length. Records are not separated. This output type is useful for uploading to mainframes that do not use record separators.

FoxPro (DBF)

This database program uses a version of dBase as its file format. Check your documentation for details.

HTML Tables (HTM)

This format option allows you to create HTML Tables in accordance with HTML 2 standards.

Lotus 1-2-3 1A, 2.0, 3.0, 4.0, 5.0 (WK*)

This spreadsheet output format is used by the Lotus 1-2-3 spreadsheet program. The following spreadsheet translation types can be selected; the indicated file extension is used for each output option.

Lotus 123 1A Lotus 1-2-3 release 1 and 1A worksheet file, file extension: WKS This file can be read by all releases of Lotus 1-2-3 and by the Symphony spreadsheet program. This format is a commonly supported by spreadsheet programs and other software packages.

Lotus 123 2.0 Lotus 1-2-3 release 2.x worksheet file, file extension: WK1

Lotus 123 3.0 Lotus 1-2-3 release 3.x worksheet file, file extension: WK3

Lotus 123 4.0 Lotus 1-2-3 release 4.x worksheet file, file extension: WK4

Lotus 123 5.0 Lotus 1-2-3 release 5.x worksheet file, file extension: WK4

Mailing Label (LBL)

This text output format produces a mailing label style file. Each line of a column (cell) is output as a separate line in the Output File.

Label output type is useful for translating an Input File that contains names in one column and addresses in another column into a file that has the name on the first line, address on the next line, etc. If there are five columns defined, the data in column A will appear on every fifth line. To add blank lines between labels to control spacing, define columns on the right side of the mask at a location that does not contain data.

Microsoft Access 1.1, 2.0 (MDB)

These database output formats are used by the Microsoft Access application. Lower versions of Access will not load higher version database files. Higher versions of Access will load lower version database files. The following database translation types can be selected; the MDB file extension used for all versions of Access.

Microsoft Access 1.1 Access version 1.1 database file.

Microsoft Access 2.0 Access version 2.0 database file.

Microsoft Word Merge File(WRD)

This word processor output format is the data document file format used by Microsoft Word for DOS for print merges. This file format can also be used by Microsoft Word for Windows.

Paradox 3.5, 4.0 (DB)

This database output format is used by the Paradox database management application. The following database translation types can be selected; the DB file extension used for these versions of Paradox.

Paradox 3.5 Paradox version 3.5 database file.

Paradox 4.0 Paradox version 4.0 database file.

Print Image (PRN)

This text output file format is a DOS print image file. This file type contains no special formatting and can be read by word processing software. Text in the file is arranged in columns without use of tabs.

Quattro (WKQ)

This spreadsheet output format is used by the Quattro spreadsheet program.

Quattro Pro (WQ1)

This spreadsheet output format is used by the Quattro Pro spreadsheet program.

Quattro Pro 5.0 for Windows (WB1)

This spreadsheet output format is used by the Quattro Pro 5.0 for Windows spreadsheet program.

Standard Data Format (SDF)

This text output format produces a Standard Data Format file. All fields are a fixed width and all records are a fixed length. Each record is separated by a carriage return and line feed (ASCII codes 13 and 10).

Sylk (SLK)

This interchange output format produces a Symbolic Link file. Many of Microsoft's products read SYLK files, including MultiPlan and Microsoft Chart.

Symphony 1.0, 1.1 (WRK, WR1)

This spreadsheet file format is used by the Symphony spreadsheet program. The following database translation types can be selected:

Symphony 1.0 Symphony release 1.0 worksheet file, file extension: WRK

Symphony 1.1 Symphony release 1.1, 1.2 and 2.x worksheet file, file extension: WR1

Tab Separated Variable (TSV)

This text output format separates variable fields or cells with the tab character (ASCII code 9). Records are separated by a carriage return and line feed (ASCII codes 13 and 10). This output type is used by many Apple Macintosh applications. It is also useful for preparing tables to be loaded into word processors.

User-Defined Delimited (UDD)

This text output file type separates records or cells with one or more user selected ASCII characters. Non-numeric fields, or labels, are also surrounded by one or more user selected ASCII characters. Records are separated by a carriage return and line feed (ASCII codes 13 and 10).

To define the delimiter character(s) for UDD format, choose File Define Output Format. From the Output File Type pull-down menu and choose User-Defined Delimited. The Field Separator and String Delimiter options appear. In the Field Separator field, type the character to indicate the end of a cell or record data and the beginning of the next cell or record. In the String Delimiter field, type the character to use to set off text or alphanumeric strings in data cells or records.

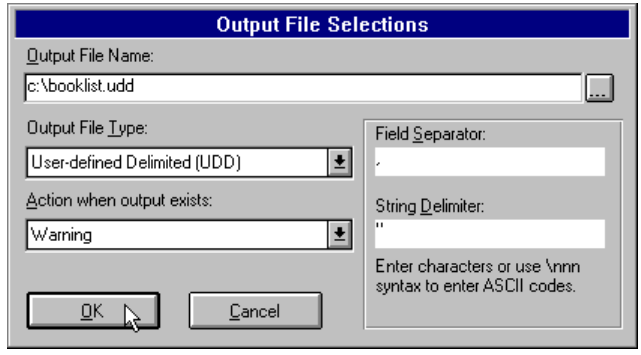


Figure A-2 *Defining the Field Separators and String Delimiters for the User-defined Delimited output format.*

WordPerfect 5.0, 5.1 (W5*)

This text output format is a secondary merge file for WordPerfect. The following database translation types can be selected:

WordPerfect 5.0 WordPerfect 5.0 secondary merge document, file extension: W50

WordPerfect 5.1 WordPerfect 5.1 secondary merge document, file extension: W51

xBase applications (DBF)

These database programs uses versions of dBase as their file formats. Check your documentation for details.

Appendix C: Getting Data out of Other Applications

Generating an Input File

If you do not have an ASCII text Input File already, this section offers some solutions for generating a file that DataImport can use. DataImport will read almost any file, but some file types have so many "garbage characters" or binary information that make extracting data arduous if not impossible.

Most DOS, minicomputer and mainframe applications have an output option for ASCII text. These options may have different names such as "Text", "ASCII", "Text Only", "DOS Text" or "Generic Text." You can also use formats such as CSV (Comma Separated Variable) or TSV (Tab Separated Variable). Separated formats should be processed into columnar format using the Comma Separated Values process in the Utilities application.

Finding the right output option may require some initial experimentation. If you find an option with names similar to those listed above, try the output option and load the resulting file into DataImport. If you are unfamiliar with the operation of the source program, consult your documentation or contact your system administrator.

Generating Output

There are two main ways to obtain output from a program. The safest way—from a data integrity standpoint—is called "printing to file" or "print to disk". These functions send the text of a printout to a file on a floppy or hard disk. This print file can then be read into DataImport.

Printing to file options are usually controlled through print options or printing commands in your application. Printing to file can be as easy as choosing an option and executing the print command. Other systems may require you to install a special print driver. A *print driver* is a small software program that lets an application communicate with a printer to generate output. If you use Microsoft Windows, you can install the Generic / Text Only printer driver to generate a print image file from any Windows application. See "Printing to a File in Windows" on page 137.

Be sure to check with your system administrator before saving files from a database management application.

The second—and less safe—way to generate an ASCII text file is to save data to a text file using a save file function in the source application. This method is less safe from a data integrity point of view because saving a file—especially from a database program—can potentially overwrite an existing source file. If you receive your source data through e-mail or a communications program, saving the information in a text format file is probably the best choice for generating an Input File.

Most database management programs have safeguards to protect data from being overwritten, but you should not assume they are absolutely foolproof. In most cases, it is better to generate a report from the database and print it to disk or save it, rather than extract data by saving a piece of a larger database file.

Printing to a File in Windows

Microsoft Windows provides a printer driver that will allow you to generate a text print image file usable with DataImport. You can use this driver with any application that has a File Print command. The driver is called the Windows Generic / Text Only print driver. The driver is installed from the Printer application in the Control Panel. Select FILE: as the port.

To print a report to file in your application, select the Generic/Text Only printer using the Print Setup command. Then select your application's Print command.

Windows will automatically prompt you to give a file name for the print output. Type in the path and name of the print file and press OK. The print output will be saved to the file you specified. Load the file into DataImport as you would any other Input File. For best results, select a monospaced font—like Courier, Terminal or Fixedsys—in your source application before printing with the Generic/Text Only driver.

Printing to a File in DOS Applications

Most DOS applications have the ability to print to a file. Check your program's documentation or contact your system administrator for more information.

Some applications cannot print their output to a disk file. DataImport comes with a program called Printer Interceptor that can intercept the output of a DOS application.

Printer Interceptor is a Terminate and Stay Resident (TAR) program that intercepts output sent to a printer port and writes it to a Capture File.

Using Printer Interceptor

The Printer Interceptor terminate and stay resident (TSR) program intercepts output going to a printer port and redirects the output to a file. It is installed in memory from a DOS command line. Additionally, the current installation in memory can be modified from the DOS command line.

Printer Interceptor stays in memory until it is uninstalled or until the computer is rebooted.

Syntax:

PI printer filename [/A][/Bv][/N][/P][/Q][/Tv][/R][/S][/U]

The **printer** and **file name** parameters are positional and separated by spaces. The switches are not separated by spaces, and can be in any order.

printer Printer port to be intercepted. Valid printer ports are PRN, LPT1, LPT2, and LPT3. To intercept a serial port, the DOS MODE command must be used to redirect output to one of the parallel ports before starting Printer Interceptor.

filename Capture File name, including the drive, path and extension if necessary. This file will receive the information intercepted from the printer port. If no drive or path is specified, the Capture File is placed in the current directory. If no extension is provided, PRN will be used.

/A Appends the intercepted data to the end of the Capture File. The default is to overwrite the file if it exists.

/Bv Specifies the size of the memory buffer with "v" that Printer Interceptor uses in writing to the Capture File. The larger the buffer, the faster Printer Interceptor operates. The default buffer size is 5,120 bytes. The buffer can be no larger than 62,000 bytes.

The larger the buffer size, the more memory that is required to install printer interceptor, and the less memory that is available for other applications. With a larger buffer size, Printer Interceptor physically writes to the disk less often.

NOTE If the buffer size is not adequate, some applications on fast computers may overflow the buffer before Printer Interceptor can write its contents to disk. If this occurs, Printer Interceptor beeps and some data will be missing from the Capture File.

/N Disables the hot-key combination of <Alt-Shift-P> that toggles interception on and off.

NOTE The /N switch should be specified if another TSR is using the same hot-key combination of <Alt-Shift-P>.

/P Prints the data while intercepting to a file. The default mode only captures the data to the file and does not print it. The /P option should only be used if a printer is connected to the port from which output is being intercepted.

/Q Selects quiet operation. To confirm that it is working, Printer Interceptor defaults to audible operation (speaker buzzes during interception).

/Tv Times out after the number of seconds specified with "v" after interception of the last character. When time out occurs, the

capture buffer is flushed and the Capture File is closed. Printer Interceptor writes from its buffer to the Capture File if the buffer fills, if time out occurs, or under certain other conditions. The time out can be set to any number of seconds between 0 and 3600 (1 hour). The default is 30 seconds.

Time out does not stop printer interception. Time out has two uses. It can be used to verify that the intercepted data is physically written to the disk for protection from loss of electrical power. It is also used with interception of date and time stamped files (discussed later in this section).

/S Temporarily suspends interception by deactivating Printer Interceptor.

/R Resumes interception after suspension with the **PI /S** command or by pressing the hot-key combination.

/U Uninstalls or removes Printer Interceptor from memory.

Example

Following is an example of a command line for intercepting output normally routed to LPT1. This line sends the data to the file named CAPTURE.DAT in the directory MYDIR, as well as sending it to the printer.

```
PI LPT1 \MYDIR\CAPTURE.DAT /P
```

Changing Printer Interceptor's Settings

Printer Interceptor does not have to be stopped in order to change the port from which data is being intercepted or the file that should receive the data. Simply, reissue the PI command with the **printer** and **file name** parameters, and any desired switches.

Displaying the Current Settings

To see the current settings for Printer Interceptor after it is installed in memory, issue the PI command with no parameters.

Temporarily Stopping Printer Interceptor

After Printer Interceptor is installed, it can be temporarily deactivated from the DOS command line by issuing the **PI /S** command. All interception stops. To restart Printer Interceptor from the DOS command line, simply re-issue the Printer Interceptor command with the desired parameters.

To temporarily disable Printer Interceptor by using the hot-key, press <Alt-Shift-P>. To re-enable Printer Interceptor, press <Alt-Shift-P> again. Two beeps indicate when Printer Interceptor is disabled; one beep indicates when Printer Interceptor is re-enabled.

Date and Time Stamped Files

Printer Interceptor can create Capture Files that have the date and time of interception as part of the file name. A new date and time stamped file is started after each "time out" as determined by the value of the /T switch, which defaults to 30 seconds.

To activate the date and time stamp feature replace the file name on the command line with "D*". Examples:

PI PRN D*

PI LPT2 A:\D*.DAT

PI LPT1 D*. /T5

The first example places the intercepted output into date and time stamped files in your current directory with a ".PRN" extension. The second example captures the output going to LPT2 and puts it into files on the A: drive with an extension of ".DAT". The third example intercepts LPT1 and puts the output into date and time stamped files in the current directory without an extension; the interception "times out" 5 seconds after the last character is received.

The name of the Capture File is in the form of MMDDhhmm, where the first 2 characters are the month number. The next 2 characters are the day number, followed by the hour and the minutes. If the extension is not provided, it will default to ".PRN". For example, a date and time stamped file created on October 15, 1996 at 1:30 PM would be 10151330.PRN.

Printer Interceptor creates a new file with a new date and time stamp if it times out after the last character is intercepted or if Printer Interceptor is temporarily disabled with the <Alt-Shift-P> key combination.

Uninstalling Printer Interceptor

After Printer Interceptor is installed, it can be uninstalled from the DOS command line by issuing the **PI /U** command. This removes Printer Interceptor from memory and normal operation of the printer will be resumed.

Appendix D: Data Type Colors and Indicators

How Cell Types are Indicated

DataImport makes extensive use of color to indicate how information in each cell will be recognized and formatted during translation. The Line Control Bar also displays line treatment for each line. The following table shows the meaning of colors in the Mask application's Input File window:

Cell Type	Display Color	Line Control Bar
	Background:	
Numeric Column	Blue	---
Text Column	Magenta	---
Date Column	Green	---
Time Column	Yellow	---
Title Line	Red	T
Heading Line	Magenta	H
	Foreground:	
Numeric Line Tag	Blue	---
Text Line Tag	Magenta	---
Date Line Tag	Green	---
Time Line Tag	Yellow	---
Signed Overpunch Tag	Blue	---
Reference Point	Red	---

Figure D-1 *Colors displayed for various Cell Types*

Appendix E: Shortcut Keys

Cursor Key Operations

The cursor keys provide an easy way to move around the Mask Screen when in the Input File window. These keys are also used to define the ranges of lines and columns when in the Point mode.

Keystroke	Result
↓	Moves the cursor down one line
↑	Moves the cursor up one line
→	Moves the cursor to the right one position
←	Moves the cursor to the left one position
Page Up	Moves display up one full window
Page Down	Moves display down one full window
Home	Moves cursor to top left corner of the window
Control Home	Displays the first 20 lines of the Input File and moves the cursor to line 1 position 1
End	Moves cursor to the bottom right corner of the window
Control End	Displays the last lines of the Input File and moves to character position 1
Tab	Moves cursor 8 characters to the right
Shift	Starts/Ends a selection in the Input File window
Control →	Moves cursor one full screen to the right
Control ←	Moves cursor one full screen to the left

Figure E-1 *DataImport Mask cursor movement keys*

Shortcut Function Key Operations

The function keys labeled F1 to F10 are used for frequently performed operations and menu selections in the Mask window. Using these shortcut keys saves time in defining a mask.

Pressing the following function keys in the Mask window performs the described operations:

Key	Result
F1	Opens the Help file to the section covering the current function
F2	The same as **Column Define...**
F3	The same as **Search Find Next...**
Ctrl+F	The same as **Search Find Text...**
Shift+F3	The same as **Search Find Previous...**
F4	The same as **Column Undo**
F5	The same as **Line Skip**
F6	The same as **Line Heading**
F7	The same as **Line Value**
F8	The same as **Line Title**

Figure E-2 *DataImport Mask function keys*

Appendix F: Match String Wildcard Characters

Pattern Match Characters

allowed in each position for Include, Exclude, Resume, Pause, Reference pattern match string require that specific character at that position.

	(caret)	
!		Any character except 0 through 9
	(tilde)	
_		Any character including blank

Figure F-1 *Wildcard characters used for pattern match strings*

Appendix G: Command Line Use

DataImport Translate, Utilities, and Task Commander programs can be run as batch operations, allowing you to further automate your translations.

The DataImport Task Commander allows the execution of a series of DataImport Translate, DataImport Utilities and non-DataImport applications that can be run from a command line. With the DataImport Task Commander, you can run batch processes without knowledge of the command line. Task Commander automatically creates the command lines for you.

You can also achieve some batch-like functionality by creating an icon or a shortcut for a DataImport translation or utilities process. To achieve more extensive batch processing functionality in Windows, you will need to use an add-on utility like WinBatch by Wilson WindowWare (800-762-8383) or another third-party utility.

Translate Command Line

Once a Mask has been defined and saved to disk, the translation can be performed using command line controls.

Syntax:

DIW mask[,[input],[output],[type],[display],[confirm]][/A] [/C]

The command line parameters that follow the **DIW** command are positional and separated by commas. If a parameter is skipped, a comma must be used to hold its place. The switches, **/A** and **/C**, are not positional and are not separated by commas.

mask Mask File name, including the path if necessary. This is the only required parameter. If no other parameters are specified, the parameters specified when the mask was created (or last saved) will be used in the translation.

input Input File name, including the path and extension if necessary.

output Output File name, including the path if necessary. If an extension is specified, it will be used rather than the file

extension DataImport normally uses based on the type of translation.

type Type of translation to be performed. Any of the following types can be specified:

WKS Lotus 1-2-3 release 1 and 1A
WK1 Lotus 1-2-3 release 2.x
WK3 Lotus 1-2-3 release 3.x
WK4 Lotus 1-2-3 release 4.x and 5.x
WRK Symphony release 1.0
WR1 Symphony release 1.1, 1.2 and 2.x
WKQ Borland Quattro
WQ1 Borland Quattro Pro
WB1 Borland Quattro Pro 5.0 for Windows
XLS Microsoft Excel version 2.1
XLS3 Microsoft Excel version 3.0
XLS4 Microsoft Excel version 4.0
XLS5 Microsoft Excel version 5.0 and 7.0.
DBF dBase III
DBF2 dBase II
DBF3 dBase III
DBF4 dBase IV
MDB1 Microsoft Access 1.1
MDB Microsoft Access 2.0
DB35 Paradox 3.5
DB Paradox 4.0
DAT Clarion
DIF Columnwise DIF
CDIF Columnwise DIF
SLK SYLK or Symbolic Link
PRN Print Image
HTM HTML Table
ASC Comma separated with quotes around strings
CSV Comma Separated Variable
SDF Standard Data Format
FXD Fixed record format without delimiters
TSV Tab separated variables
UDD User-defined delimited
TXT ASCII text file
LBL Mailing label format
WRD Microsoft Word data document
W50 Word Perfect 5.0 secondary merge file
W51 Word Perfect 5.1 secondary merge file

display Specifies whether the output is to be displayed on screen during translation: **Y** for yes, **N** for no. The default is Yes.

confirm Specifies whether Include Line and Exclude Line treatments must be confirmed manually during the translation. **Y** for yes, **N** for no. The default is No.

/A Appends the output of the translation to the end of an existing Output File. See the description of the Mask command **Files Define Output File...** for more information.

/C combines the output of the translation into an existing spreadsheet Output File. See the description of the Mask command **Files Define Output File...** for more information.

The only required parameter is the Mask File name. If no other parameters are specified, the parameters defined when the mask was created or last saved are used.

To specify some parameters and not others, include the intervening commas as place holders. This is necessary to indicate to DataImport which of the options you want to use. For example, if you want to use the name of the Input File stored with the mask, but want to change the name of the Output File, you would place two commas before the name of the new Output File. Otherwise, DataImport would interpret the file name as an Input File. Commas, however, are unnecessary as place holders before the /A and /C parameters.

If a parameter is not specified on the command line and the parameter has not been specified in the mask, the translation cannot proceed. In such cases when DataImport aborts the translation, a message is displayed on the screen to indicate the missing or invalid parameter(s).

The following four examples illustrate the ways translations can be initiated using a command line.

Translate Command Line Example 1

To perform a translation from the command line using the following parameters:

Mask File name	MYMASK
Input File name	DIDEMO.TXT
Output File name	SALESDAT
Translation type	XLS
Display on	Y (Yes)
Confirm include/exclude	Y (Yes)
Append to existing file	/A

The command line should read:

DIW MYMASK,DIDEMO.TXT,SALESDAT,XLS,Y,Y/A

Translate Command Line Example 2

To perform a translation from the command line, use the following parameters:

Mask File name	MYMASK
Input File name	as specified in the mask
Output File name	as specified in the mask
Translation type	XLS
Display on	default to yes
Confirm include/exclude	default to no

The command line should read:

DIW MYMASK,,,XLS

Translate Command Line Example 3

To perform a translation from the command line, use the following parameters:

Mask File name	MYMASK
Input File name	as specified in the mask
Output File name	as specified in the mask
Translation type	as specified in the mask
Display on	default to yes
Confirm include/exclude	default to no

The command line should read:

DIW MYMASK

Translate Command Line Example 4

To perform a translation from the command line, use the following parameters:

Mask File name	MYMASK
Input File name	ORIGINAL.DAT
Output File name	GOOD
Translation type	as specified in the mask
Display on	default to yes
Confirm include/exclude	default to no
File-combine	/C

The command line should read:

DIW MYMASK,ORIGINAL.DAT,GOOD/C

Utilities Command Line

The running of a utility can be initiated from a command line.

Syntax:

DIUTILW option[=v1[,v2]] input [output] [/W]

The **option**, **input** file name and **output** file name parameters are positional and separated by spaces.

option Option or process to be performed. DataImport offers eleven options or utilities.

L Line Split by Length
R Records per File Split
T Tab expansion to ASCII columnar
C CSV (Comma Separated Variable) to columnar
F Fixed length records
S Statistics
U Unstack
D dBase to ASCII columnar
H Header of dBase to ASCII file
AASCII to EBCDIC
E EBCDIC to ASCII
P Parse space delimited to columnar

The options and examples of their uses are described below.

v1 & v2 Required and/or optional values. Whether these values are used depends on the utility option specified.

input Input File name, including the path and extension if necessary.

output Output File name, without an extension, but including any drive and path specifications necessary to tell DataImport where to find the existing file or where to place the new file. If an Output File name is not specified, the Output Files will have the same path and name as the Input File. DataImport provides unique, sequential file extensions (A1 through A99), as some options produce more than one Output File.

/W Includes a Warning if DataImport detects that the Output File name specified already exists. Stops the program and prompts whether to proceed. If not specified, any file(s) having the same name as the Output File will be overwritten.

DataImport offers twelve options or utilities. Descriptions of these options and examples of their use are provided below:

L=v1 Line Split by Length Splits the Input File vertically by producing two or more Output Files with shorter record lengths. The value v1 is the maximum record length in the Output Files. See the description of the DataImport Utilities process Line Split by Length for more information.

For example, to split the file INFILE.DAT into files with a record length of 80 and output the data into files with the name of OUTFILE, the command line would read as follows:

DIUTILW L=80 INFILE.DAT OUTFILE

The number of files created depends on the length of the Input File and the number of characters specified as the maximum length for each Output File. The first Output File is named OUTFILE.A1, the second OUTFILE.A2, etc.

R=v1 Records per File Split Splits the Input File into two or more files with fewer records in each Output File. The value

v1 is the maximum number of records in the Output Files. See the description of the Utilities process **Records per File Split** in the Utilities Reference for more information.

For example, to split the file INFILE.DAT into files with no more than 8192 records per file, the command line would read as follows:

DIUTILW R=8192 INFILE.DAT

The number of files created depends on the length of the Input File and the number of records specified as the maximum for each Output File. The first Output File is named INFILE.A1, the second INFILE.A2, etc.

T=v1 Tabs Expands tab characters by the value indicated by v1. This value sets the number of spaces to use as tab stops. See the description of the Utilities Screen option **Function Tabs** for more information.

For example, to expand the tabs in the file INFILE.DAT with tab stops of 8, the command line would read as follows:

DIUTILW T=8 INFILE.DAT

C[=v1[,v2]] Comma Separated Converts a comma separated (or user-defined separated) file into an ASCII columnar text file. The value v1 specifies the field separator. The value v2 specifies the string delimiter. If no optional values are supplied, the comma character (ASCII: 44) will be used as the field separator, and the quote character (ASCII: 34) will be used as the string delimiter.

See the description of the Utilities Screen option Comma Separated Values for more information.

For example, to convert the semicolon and quote delimited file INFILE.DAT, the command line would read:

DIUTILW C=59,34 INFILE.DAT

F=v1[,v2] Fixed Converts a fixed length record file that does not have record separators into a sequential file with record separators. The value v1 is the length of each record in characters. The optional value v2 is the number of characters to skip at the beginning of the Input File before outputting records. This option is useful when the first part of the file contains header information or other data that should not be translated. See the description of the Utilities process **Fixed Length** in the Utilities Reference for more information.

For example, to convert the file INFILE.DAT into sequential records with a length of 16 and to skip the first 18 bytes in the file, the command line would read as follows:

DIUTILW F=16,18 INFILE.DAT

S Displays statistics about the Input File. The statistics include the length of the longest line, the number of

description of the Utilities process **Statistics** Reference for more information.

For example, to display statistics about the file INFILE.DAT,

DIUTILW S INFILE.DAT

U=v1[,v2] Unstack

logically go together, but are on separate lines. The value v1 specifies the number of lines to be combined into a single line.

beginning of the file before combining lines. This option is useful if the first part of the file contains header information or

the Utilities process **Unstack** Reference for more information.

For example, to unstack the file INFILE.DAT by combining

command line would read:

DIUTILW U=2,5 INFILE.DAT

dBase Creates a sequential file that is usable by DataImport

Utilities process **dBase Convert** Reference for more information.

For example, to convert the dBase file INFILE.DBF to a

DIUTILW D INFILE.DBF

H Outputs the dBase file structure contained in the database file's header record. See the description of the Utilities **dBase Header** in the DataImport Utilities Reference for

For example, to output the structure of the dBase file INFILE.DBF, the command line would read as follows:

A ASCII TO EBCDIC

encoded in ASCII (used by PC's) into a file encoded in EBCDIC (used by IBM midrange and mainframe computers). **ASCII->EBCDIC** the DataImport Utilities Reference for more information.

For example, to convert the ASCII file INFILE.DAT to an

DIUTILW A INFILE.DAT

E **EBCDIC TO ASCII** Converts a file whose characters are encoded in EBCDIC into a file encoded in ASCII, that is usable by DataImport. See the description of the Utilities process **EBCDIC->ASCII** in the DataImport Utilities Reference for more information.

For example, to convert the EBCDIC file INFILE.DAT to an ASCII file, the command line would read as follows:

DIUTILW E INFILE.DAT

P=v1[,v2] **Parse space delimited** converts a space separated variable file into a file with fixed length fields. The value v1 specifies the width of columns to use for the parsed fields. The optional value v2 specifies the number of character positions at the beginning of each line to write to the Output File without parsing.

For example, to convert the space separated file INFILE.DAT into a columnar file with the first 20 characters exactly as in the in the Input File and the remaining characters in columns that are 10 wide, the command line would read as follows:

DIUTILW P=10,20 INFILE.DAT

Task Commander Command Line

The DataImport Task commander can be run from the command line.

Taskfile Taskfile is the name of the file created and saved in Task Commander. Taskfiles always have an extension of TSK.

Syntax:

DITASK taskfile

Appendix H: Customizing the Dictionary File

Default Dictionary

DataImport comes with a default dictionary file (DEFAULT.DIC) which is used when defining columns and line tags with a type of Name Parse and/or Address Parse. The dictionary file contains common prefixes, suffixes and beginnings of last names. It also contains the names and abbreviations for all of the states of the United States, the provinces of Canada, and several countries. If the data you are working with uses different or additional prefixes, provinces, etc., you can edit the default.dic file or a copy of the default.dic file. The name of the dictionary file to be used in a mask is specified from the mask's **Options Global** dialog box.

Editing the Default.dic file

Using an editor such as Windows Notepad or DOS Edit, open the default.dic or other .dic file.

Make the changes to the appropriate section. For example, if you wanted to include the Provinces of Australia and their abbreviations, you would locate the section of the file named [State/Province] and enter the following data:

Queensland
Qld.
New South Wales
N.S.W.
Western Australia
W.A.
Southern Australia
S.A.
Northern Territory
N.T.

Example

Following is an example of the sections and contents of a dictionary file. The section names must be **exactly** as shown.

[prefix]

Mr. & Mrs.
Mr.
Mr
Ms.
[suffix]
Jr.
Jr
M.D.
M. D.
[begin_last_name]
Van Der
Von
St.
[begin_cities]
St.
Los
Las
New
[State/Province]
Alabama
AL
Alaska
AK
Alberta
AB

Appendix I: Frequently Asked Questions

DataImport Questions

I'm translating into a database and I've changed the column type in the mask from numeric to character (text). I open the file in my database management software and the field type has not changed! What's wrong?

You have already translated the file, the database exists. Database files contain both the data records and a structure that defines the layout of the fields in the records. This structure includes field names, types, and widths. As a safety precaution, DataImport never changes this structure. Therefore even if DataImport created the structure, changing column types and widths in the mask will not change the structure, even if the replace option is selected. Replace will only replace the data records, not the structure. To solve this problem, either change the output file name to a new name, or delete the existing database file. See the section in Chapter 4 titled "Working with Database Files".

I've translated my data and nothing came out. Why?

There are several possible reasons. You must have at least one column or Line Tag defined. You must also be in Global Output Line Mode, or have at least one line whose type is indicated in the mask application as either Output or Include

Why is DIW removing leading 0's from numeric data?

You have selected numeric as the column's type. Leading 0's (zeros) are stripped when translating to a number. To keep the leading 0's in numbers like zip codes and social security numbers, select text as the column type.

How big of a file can DataImport translate?

DataImport can translate files of unlimited lengths. DataImport can extract data from the first 2,048 characters of each line or record.

Is there some way to automate a series of translations and/or utility processes?

Sure, see Chapter 8: Task Commander.

Why don't I see all of my file in the Mask window. What will happen when I translate?

DataImport by default loads 1000 lines of the file. This can be changed under the Options Preferences menu. The Mask screen can load up to 16,384 lines to be displayed. Regardless of how many lines are loaded into the mask screen, DataImport will translate the entire file.

Why do I get an error message when I translate my 70,000 line file to Excel?

The Excel format is limited to 16,384 lines. If your files are larger than this, you should probably be using a database. You could also use the Utilities to split the file by length to create a series of input files that contain fewer lines per file.

I have Line Tags defined. They are coming out repeatedly on multiple lines when I translate. I only want them to come out one time for each set of data.

You are probably in Global Output Line Mode. Try including just one line for each set of data in your file while in Global Skip Mode. See the "Include Lines Define" option in Chapter 5.

I'm trying to unstack sets of 3 lines to make one line that contains all of the information from these lines. Some times one or two of these lines appear at the bottom of a page and the remaining lines appear at the top of the next page under the page heading. The headings are getting in the way.

This will require two masks and two translations. First, define a mask that selects all of the columns of information that you need. You can use **Column Auto Define All** to do this very quickly. In this mask, use the Exclude Lines feature to exclude the page headings. Select the Output file type as print image (.PRN) and translate. Start a new mask and load the print image file that you just created as the Input file. This new Input file will not include the interrupting page headings. Now you are ready to apply the unstack feature and select the columns of information that you want. Remember, that you can automate this two step process by using DataImport's Task Commander.

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